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(TRAMAN)

Naval Orientation

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Naval Education And Training Program Management Support Activity

NAVAL ORIENTATION

NAVEDTRA 12966

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL EDUC AND TNG

1991 Edition Prepared by
LT William L. Brackin, USN

PREFACE

Naval Orientation, NAVEDTRA 12966, and the nonresident training course (NRTC), NAVEDTRA 82966, form a self-study training package that has been prepared mainly for use in officer training programs. However, it is a source of useful information for every member of the Department of the Navy. The text provides valuable background information for all hands and introduces personnel to the rules, customs, and traditions that govern Navy life.

The NRTC consists of 12 assignments that have been designed for use with this text.

You may order the self-study training package (NRTC and this text) by NRTC NAVEDTRA number (NAVEDTRA 82966) on ADP Form 1510/1(4-85) from the Naval Education and Training Program Management Support Activity (NETPMSA), Code 0742, Pensacola, FL 32559-5000. NETPMSA will administer the NRTC. Upon completion of this course, you may retain this self-study training package (NRTC and text).

You may order additional copies of this text by stock number on a DD Form 1348 from Naval Publications and Forms Center (NPFC), Philadelphia.

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THE UNITED STATES NAVY

GUARDIAN OF OUR COUNTRY

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends; the United States Navy exists to make it so.

WE SERVE WITH HONOR

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and the future.

At home or on distant stations we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

THE FUTURE OF THE NAVY

The Navy will always employ new weapons, new techniques, and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war.

Mobility, surprise, dispersal, and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

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CHAPTER 1

NAVAL SEA POWER

LEARNING OBJECTIVES

Learning objectives are stated at the beginning of each chapter. These learning objectives serve as a preview of the information you are expected to learn in the chapter. By successfully completing the nonresident training course (NRTC), you indicate you have met the objectives and have learned the information. The learning objectives for chapter 1 are listed below.

Upon completion of this chapter, you should be able to do the following:

1. Define sea power.
2. Define the establishment of the Continental navy.
3. Portray naval operations of the Civil War.
4. Describe naval operations of World War I.
5. Identify naval operations of World War II.
6. Describe naval operations of the Korean conflict and the Vietnam conflict.
7. Describe naval operations in the Persian Gulf.
8. State the reasons why a strong Navy is needed to support our national objectives.
9. Identify the mission of the U.S. Navy.
10. State the four mission areas in which the Navy carries out its function.
11. Analyze the Soviet military threat.
12. Analyze the Soviet political threat.
13. Describe Soviet naval capabilities.
14. Outline the Soviet naval personnel structure.
15. Identify treaties and pacts of which the United States is a member.

Sea power as a concept means more than military power at sea. The Navy's definition of sea power is explained in the following paragraph:

> Sea power is the sum of a nation's capabilities to implement its interests in the ocean, by using the ocean areas for political, economic, and military activities in peace or war in order to attain national objectives—with principal components of sea power being naval power, ocean science, ocean industry, and ocean commerce.

The first use of the term *sea power* was by Captain Alfred Thayer Mahan, USN, in his principal work, *The Influence of Sea Power Upon History, 1660-1783*, published in 1890. Mahan explained six conditions required for a nation to have sea power: (1) an advantageous geographical position; (2) serviceable coastlines, abundant natural resources, and a favorable climate; (3) extent of territory; (4) a population large enough to defend its territory; (5) a society with an aptitude for the sea and commercial enterprise; and (6) a government with the influence to dominate the sea.

Geographical position was described as the most significant condition in the rise of English sea power to world dominance. England was ideally situated astride the major sea lanes of European trade. Therefore, in times of peace England would prosper commercially and in times of war would deny the use of these vital sea lanes to its enemies. In addition, England's insular position protected it from invasion by enemies and prevented the necessity of a large army.

Although geographical position is important, Mahan observed that other conditions are also important for a nation to become a strong sea power. An advantageous geographical position is of little benefit to a nation that lacks a suitable coastline for harbors, natural resources, and a favorable climate. A nation that possesses such benefits will seldom look seaward. England, lacking these natural advantages, was compelled to turn to the sea.

Mahan's third and fourth conditions, extent of territory and a population large enough to defend its territory, are interdependent. A nation's coastlines and harbors are not only commercial outlets, but also a means of penetration by its enemies.

A nation must have a strong navy and engage in profitable trade with other nations to become a sea power. Therefore, as Mahan states in the fifth requirement, the society of that nation must have an aptitude for the sea and commercial enterprise.

Finally, the government of a nation must have enough influence over other nations to dominate the sea.

In the decades immediately following the Civil War, the primary role of the U.S. Navy was as coastal defender and commerce raider. The United States did not exercise the concept of sea power, but believed in the concept of national isolation. In effect, the nation stressed naval expansion within its own country. By 1890, however, the nation began naval expansion toward other countries, and its concept of national isolation began to ebb.

Those groups in the Navy and in the government who believed in the concept of sea power endorsed Mahan's doctrine. They based their endorsement on the belief that history provides clues to achieving maritime supremacy. Mahan's concept, therefore, became the intellectual force behind the United States' development of its Navy into a sea power.

HISTORY OF SEA POWER

Sea power as an important influence in history dates back to 2000 B.C. The ancient Cretans are credited with being the first nation to possess a navy and a merchant marine. Because of their strong naval forces, the Cretans dominated the people on the shores of the Aegean Sea. This land area became known as Greece and Turkey.

The age of exploration and colonization was the age of sea power in its broadest application. Nations employing sea power during this age became rich and powerful. They prospered from the goods brought in by their ships, and the world prospered from the goods sent forth by their ships.

Inevitably, power struggles erupted between the maritime rivals, and many wars were fought between opposing sea powers. When sea powers clashed, the one with the soundest knowledge of the sea and the most effective use of its ships determined the victor.

Spain, Portugal, and France, the three great maritime powers, made great and enduring contributions to discovery, exploration, and colonization. Portugal, a country with only 1 million inhabitants at the time, discovered and explored almost two-thirds of the unknown world. Eventually the sea power of these countries dwindled because their knowledge of the sea was either lacking or inferior to that of their opponents.

In one of the most decisive battles of maritime history, the battle of Diu in 1509, the Portuguese fleet crushed the Egyptian-Gujerati fleet. This victory turned Portugal into a major sea power with an empire stretching from Brazil to China. It also marked the beginning of four centuries of undisputed European sea supremacy in the Indian Ocean. This battle was the first proof of the importance of artillery mounted aboard ships to destroy enemy vessels.

In 1511 the Portuguese fleet moved northward to China and then eastward through the heart of the Spice Islands to Malacca. This voyage established one of the first routes to Europe's commercial-colonial empires, which were maintained by superiority of firearms and sea power.

In the Indian ocean, the Portuguese navy was the first to understand the concept of sea power and to develop a naval strategy to suit its individual needs. Countries later achieving naval power used the same strategy introduced by the Portuguese.

The decline of the Portuguese empire as a strong sea power began in 1580 when it united with Spain in disputes with other European countries.

DEFEAT OF THE SPANISH ARMADA

From 1492 to 1588 Spain stood in the forefront of sea power among the nations of Europe. But Spain was a classic example of sea power based on quantity rather than quality, as evidenced by the defeat of the Spanish Armada by the English in 1588. At this time, the king of Spain, Philip II, determined to end successful English raids on Spanish ships and ports. To accomplish this, he launched an attack of overpowering military force against England.

The Spanish Grand Invincible Armada, made up of 124 ships, manned by 8,000 sailors, and carrying 19,000 soldiers, entered the English Channel. To oppose it, the English had only 90 ships, plus a mosquito fleet that had never seen action. However, they also had the *know-how* of Sir Francis Drake and his men. Drake, a master mariner, knew how to use the wind and tide as allies.

As a general rule, most naval battles were virtually infantry fights on floating platforms. If ramming did not sink an enemy ship, soldiers swarmed over its side to engage in hand-to-hand combat. The British, however, used the same tactics the Portuguese had used at the battle of Diu. Instead of engaging in close-range battle, English ships maneuvered to the windward side of the Spaniards and pounded them with artillery from a distance. The big, lumbering Spanish ships, with their towering upper works, were easy targets.

Ignoring a chance to attack the English off Plymouth, the Spanish sailed on up the Channel while the English pecked away at them. Although these attacks did little damage, they induced the Spaniards to fire all their heavy shot with no telling effects on the English. When the Spaniards anchored in Calais, the English forced them out by floating several burning hulks down on them during the night. The next day the combined English and Dutch fleets attacked the Armada and might have crushed it had they possessed ample powder and shot. After this upsetting blow, the demoralized Spaniards fled north and rounded the British Isles to the Atlantic. There, storms nearly succeeded in finishing what the English had started. The defeat of the Armada ushered in the decline of Spain's world dominance, while England went on to become mistress of the sea.

While not achieving any great destruction of the enemy, the English demonstrated the superiority of tactics over an abundance of weapons. From that time on, the use of gunnery that could be fired from a distance gradually replaced the shock action of close-range battles at sea. The cries of "boarders away" and "stand by to repel boarders" gradually became less frequent.

THE CONTINENTAL NAVY

SIGNIFICANT DATES

13 Oct. 1775	Second Continental Congress establishes the Continental navy.
4 Apr. 1776	Brig *Lexington* takes first enemy warship.
4 May 1780	Navy adopts its first official seal.
19 Apr. 1783	General George Washington proclaims American Revolution ended. At the end of the war, British naval strength included 469 vessels, with 174 of them mounting 60 to 150 guns. The American naval strength during the war reached a peak of 27 ships averaging 20 guns.

Navies are born out of a spirit of independence and under the threat of war. They are nurtured into maturity by the urgent demands of defense and sharpened by the encounters of conflict. The Continental navy, which was the first American navy, was born for such reasons during the American Revolution.

Before the American Revolution, the American Colonies were heavily dependent on the sea for their livelihood. Harbors and shipbuilding docks all along the coast offered livelihood to many colonists and provided income to thousands more. These ports also harbored the tiny, hastily organized American naval forces that were sent to harass the mightiest sea power in the world. Therefore, when the conflict between the Americans and the British began, these ports were naturally the first ports the British struck.

The navy of the American Revolution was fragmented into many parts, each often acting independently of the others. For instance, several naval engagements between the Americans and the British actually occurred before the Continental Congress authorized a navy. Congress finally authorized a naval committee and ordered the purchase and fitting out of a number of ships in October 1775. Thus, the American navy had officially begun; but some time would elapse before it would have any great effect on the mighty British navy.

The first warships of the Continental navy, built during the revolutionary war and into the 19th century, were classified into three types of naval vessels:

Ships-of-the-line—The battleships of the sailing days, these ships were the largest of all sailing warships. These battleships carried 64 to over 100 guns of various sizes. While the British maintained several of these ships during the revolutionary war, America did not build any until long after the war's end.

Frigates—These vessels were the cruisers of the 18th century. They were smaller and usually faster than the average ships-of-the-line and carried 28 to 44 guns.

Sloops-of-war—These were small, sailing warships that carried 10 to 20 guns.

In addition, the Continental Congress and individual states commissioned independent fleets of privateers to capture enemy merchant ships as prizes of war.

A typical vessel of the fleet of privateers was the schooner. The schooner was a small, fast, maneuverable ship that carried smoothbore cannons. The size and flexibility of such ships proved to be an advantage that eventually helped the colonists break the British stronghold on New England harbors. Being small and maneuverable, these ships allowed the colonists to slip past the Royal Navy's men-of-war by hiding in inlets. They also allowed the colonists to deliver small but effective blows to the large British ships by outmaneuvering them instead of meeting them head on.

THE CIVIL WAR

SIGNIFICANT DATES

27 Apr. 1861	President Lincoln orders blockade of entire Confederate coast.
3 Aug. 1861	Navy ends daily rum rations for enlisted.
17 Feb. 1864	Steam sloop *Housatonic* torpedoed and sunk by first submarine, Confederate submarine Hunley.
22 Jun. 1865	Confederate raider *Shenandoah* fires last shot of Civil War while in Bering Sea.

During the Civil War, control of the sea was overwhelmingly in the hands of the North. For 4 years the Union navy was constantly occupied with the task of blockading more than 3,000 miles of coastline. It was also kept busy running down Southern commerce raiders and opening the Mississippi and other waterways leading into the South. In addition, it worked in cooperation with the army in capturing coastal strongholds.

The South countered with commerce raiders, but the strangling effect of the Union blockade eventually took its toll. It crippled the finances of the Confederacy, shut out foodstuffs and munitions, and proved to be a major influence in the outcome of the war. The country learned from this war that a navy could not be quickly and readily improvised in an emergency. Even then, the days were past when merchant vessels could be converted rapidly into efficient men-of-war.

Both Union and Confederate navies were engaged in frantic shipbuilding programs, which brought the era of ironclads into full swing. In 1862 the Union launched the *New Ironsides*. Equipped with the finest armor of any American ship in history, this powerful ironclad once survived 50 hits.

The Civil War also gave us two new types of ironclads, the famed *Merrimack*, renamed the *Virginia* by the Confederacy, and the Union's *Monitor* (which sported a turret). Although the ungainly *Monitor* was called a "cheese box on a raft," it and its Confederate counterpart began a new era of ironclads. When the two engaged in battle, the outcome was indecisive, with both sides claiming victory.

The period also introduced the use of riverboats, rams, and gunboats. More changes and advances were made in ship designs during the

Civil War (1861 to 1865) than during any other period since our Navy began in 1775.

SEA POWER IN MODERN TIMES

SIGNIFICANT DATES

28 Dec. 1867	United States claims Midway Islands, first territory annexed outside continental limits.
31 Jul. 1874	USS *Intrepid*, first warship equipped with torpedoes, is commissioned.
9 Nov. 1880	USS *Ticonderoga*, first steam-powered ship to circle globe, ends cruise begun on 7 Dec. 1878.
5 Aug. 1882	Congress authorizes first steel warship.
1 Jul. 1897	First use of International Rules of the Road.
16 Dec. 1907	The Great White Fleet, the first fleet of warships to circle globe, leaves Hampton Roads, Virginia.
15 Apr. 1912	Navy dispatches USS *Chester* from President Roads, Massachusetts, to aid survivors of SS *Titanic* sunk by collision with iceberg in North Atlantic.

The span of years between the Civil War and World War I brought many changes to the U.S. Navy. The ironclads from the Civil War inspired vast improvements to shipbuilding technology. These technological advances led to the development of an all-steel Navy. Rear Admiral John A. Dahlgren (fig. 1-1), the father of modern

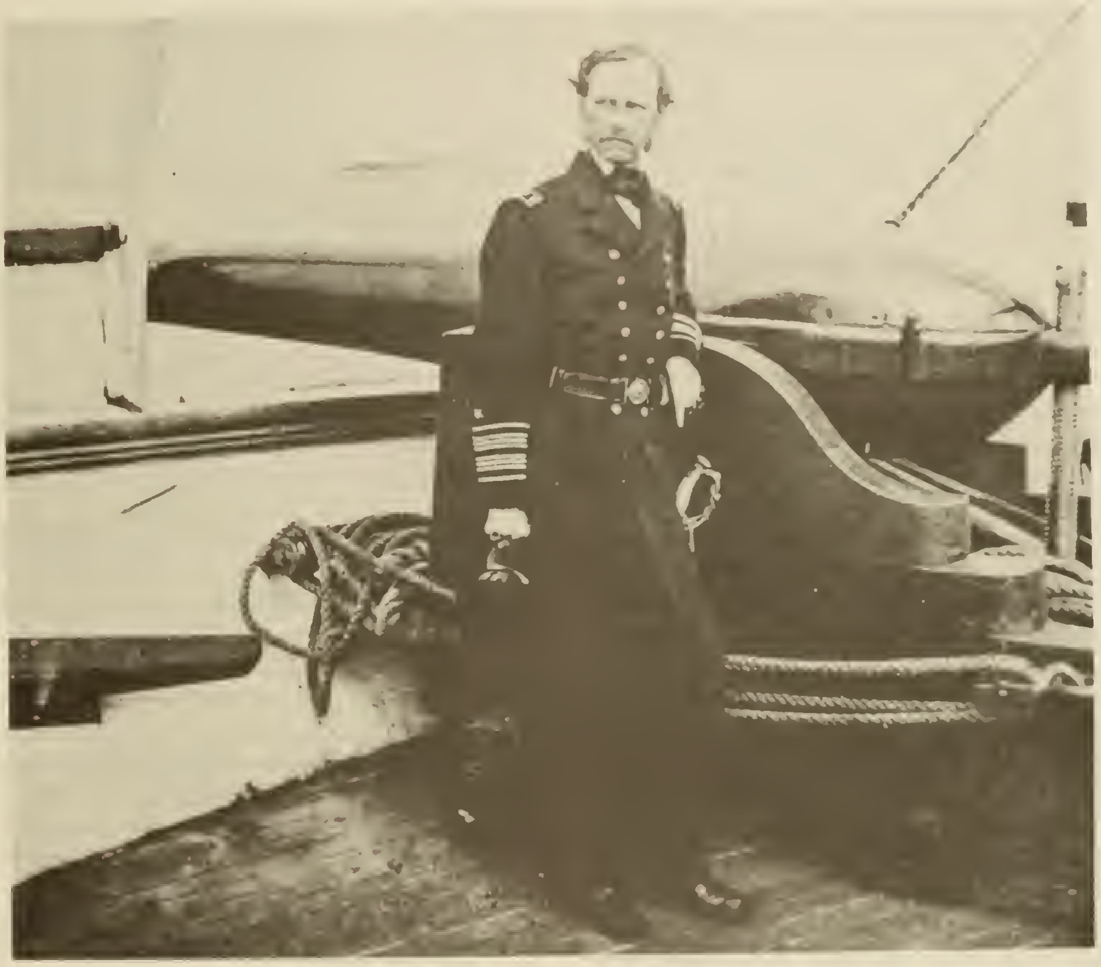

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Figure 1-1.—Rear Admiral Dahlgren, standing next to one of the guns he designed, was the leading pioneer in modern naval ordnance and gunnery. The Dahlgren Gun was the forerunner of today's modern naval gun.

ordnance and gunnery, was instrumental in equipping the all-steel Navy with improved weapons systems. Against strong protests from the Navy, Dahlgren demanded improved weapons. He designed a new, reinforced gun breech; advocated the first real sights; and urged the rifling of cannons.

One of the reasons the Navy expanded during this period was President Theodore Roosevelt's enthusiasm for a strong Navy. A large Navy gave Roosevelt the opportunity to carry out his policy of "speak softly and carry a big stick."

WORLD WAR I

SIGNIFICANT DATES

1 May 1915	SS *Gulfight* torpedoed by German submarine. First American merchantman sunk by submarine in World War I.
6 Apr. 1917	United States declares war against Germany. Navy strength at 4,376 officer and 69,680 enlisted. United States seizes and interns German ships in American ports.
11 Nov. 1918	World War I ends.

World War I involved a struggle between the predominance of land power versus naval power. Germany's leaders should have recognized that the British navy, rather than the French army, was Germany's principal barrier to success. A correct appraisal of this situation as early as 1905, when Germany began an earnest buildup of naval strength, might have resulted in a reallocation of Germany's war-making resources. Such action could have provided Germany with a navy strong enough to defeat the British navy. As it was, Germany's leaders believed in land power. Therefore, the Imperial army was the favored service—a fact that caused Admiral von Tirpitz to lament, "We Germans do not understand the sea!" Too late, Germany recognized the U-boat force, a powerful flotilla of submarines, as its deadliest offensive weapon. Although the measures taken by von Tirpitz to expand the naval arm of the German navy were extensive, his efforts were never quite enough.

WORLD WAR II

SIGNIFICANT DATES

1 Sep. 1939	World War II begins as German troops invade Poland.
31 Oct. 1941	USS *Reuben James* is torpedoed and sunk by German submarine off Iceland; about 100 sailors killed. This is the first U.S. naval vessel to be lost by enemy action in World War II.
7 Dec. 1941	Japanese attack Pearl Harbor; President orders mobilization of U.S. forces.
8 Dec. 1941	United States declares war on Japan.
4 May 1942	Battle of Coral Sea takes place; this is the first carrier-versus-carrier engagement and the first battle in modern history in which opposing ships do not exchange shots; all damage is inflicted by aircraft.
4 Jun. 1942	Battle of Midway (4-6 June) begins; this battle is turning point of war.
6 Jun. 1944	Allied Expeditionary Force invades Western Europe. Landings are made on the beaches of Normandy.
23 Oct. 1944	Battle of Leyte Gulf takes place.
9 May 1945	V-E Day occurs as Germany surrenders unconditionally to Western Allies and the Soviet Union.
6 Aug. 1945	First atomic bomb is dropped on Hiroshima, Japan.
2 Sep. 1945	World War II ends.

During World War II the Germans once again demonstrated shortsightedness and the incapacity to make the best use of their resources in sea power. Again, they failed to plan for control of the sea by building an adequate number of ships.

Even so, had the Axis power correctly estimated the strategic importance of the Mediterranean early in the war, it could have concentrated all possible naval resources in that area. Then with the Italian fleet as the main striking force and with other military forces operating in support, the Mediterranean might well have fallen under Axis power. Under such circumstances the Allies' African campaign would have faced almost insurmountable difficulties.

England held an uncertain tenure in the Mediterranean while U.S. forces were being assembled. Later, with combined strength, the United States and England conducted the great amphibious campaigns against North Africa, Sicily, Italy, Normandy, and the Mediterranean coast of France. The success of each of these campaigns was a stepping-stone to final victory.

In the first years of the war, the United States' range of operation was limited. As the Americans reduced Japan's navy, the U.S. Navy grew, especially in the area of naval air superiority. The United States was then able to operate more freely, to bypass enemy strongholds, and to omit many grueling campaigns.

Sea power means more than controlling the sea for one's own use; it also means denying its use to the enemy. Therefore, the United States also used naval blockades to deny Japan the use of the sea and eventually starve its economy.

With local control of the Pacific, Japan had been able to capture Singapore, the western Aleutians, the East Indies, the Solomons, and to threaten Australia. When Japan lost this control, it was unable to send men, supplies, and ships to the aid of Okinawa, the threshold of its homeland.

Because of the effects of sea power, United States landings in Leyte and Lingayen were ahead of schedule. In addition, the blockades prevented Japan from exploiting its strength in the Philippines and from satisfactorily reinforcing its troops at the point of attack. Control of the sea enabled United States forces to bypass many islands and avoid water controlled by the enemy.

Sea power permits multiple use of the same force; a small army becomes in effect many armies. This proved to be true as only a handful of U.S. forces in the Pacific drove steadily toward the Japanese home islands. In much of the central and western Pacific, the Japanese had a strong numerical superiority; but a large portion of its troops never entered into combat. Without adequate shipping and naval air power, the Japanese legions were helpless against the superiority of the few U.S. divisions that opposed them.

As demonstrated against Germany and Japan during World War II, naval blockades have a major impact on the outcome of war. Further understanding of a blockade's numbing grip can be gained from figures released in a report from General MacArthur's headquarters in Japan following World War II. (General MacArthur was Commander in Chief, Far East Command.)

This report showed a peak wartime production of approximately 9,600,000 tons of steel ingots in the Japanese Empire in 1943. By 1945 Japan's steel industry was producing at the rate of only 120,000 tons a year. The report indicated that 1,800,000 tons of the annual capacity was erased by bombing. The remaining 7,680,000-ton loss in production was the result of naval blockades.

Another part of this report showed further evidence of how naval blockades helped break down Japan's economy. In 1941 a total of 4,000,000 tons of iron ore was required by the Japanese steel industry. Of this, some 3,000,000 tons had to be imported from the Asiatic mainland and from the Philippines. As the naval blockade tightened, imports dropped off; by 1944 the iron content of imported ore was less than 30 percent of the tonnage imported in 1941.

In common with those of other nations, Japan's sea and air fleets were entirely dependent on petroleum for fuel. Japan imported nearly all of its petroleum supply. When the blockade applied by American submarines cut this vital supply line in 1944, Japanese naval and air forces were doomed to eventual paralysis. The industrial deterioration induced in Japan by the blockade was somewhat slower to take effect, but it was equally fatal to the nation's war effort. Industrial potential is essential in developing sea power; therefore, the destruction of an enemy's industrial

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The sun sets in Tokyo Bay on the Allied naval might gathered there on the eve of world peace, 27 August 1945.

potential is equally important in weakening its sea power.

Admiral Ernest J. King, former Chief of Naval Operations, summarized the part sea power played in World War II:

> In the European war, seapower was an essential factor because of the necessity of transmitting our entire military effort across the Atlantic and supporting it there. Without command of the sea, this could not have been done. Nevertheless, the surrender of land, sea, and air forces of the German Reich on 8 May 1945 was the direct result of the application of airpower over land and the power of the allied ground forces.
>
> In the Pacific war, the power of our ground and strategic air forces, like seapower in the Atlantic, was an essential factor. By contrast with Germany, however, Japan's armies were intact and undefeated and her air forces only weakened when she surrendered, but her navy had been destroyed and her merchant fleet had been fatally crippled. Dependent upon imported food and raw materials and relying upon sea transport to supply her armies at home and overseas, Japan lost the war because she lost command of the sea and, in doing so, lost—to the United States—the island bases from which her war-making potential could be destroyed by air.

KOREAN CONFLICT

On 26 June 1950 the United Nations made a joint decision to give the Republic of Korea air and naval assistance. Three days later, the cruiser USS *Juneau* and the destroyer USS *Dehaven* fired the first bombardment of the conflict.

When North Korea attacked south of the 38th parallel, the U.S. Navy was called on for close air support to destroy bridges and block enemy supply routes. Navy jets flew from carriers for the first time in a war situation. Unlike the enemy in World War II, North Korea didn't have the capability of striking our carriers; so pilots launched their Corsairs and Banshees on the first sustained group-support missions in history.

The helicopter was originally developed during World War II but came of age during the Korean conflict. The Navy received four Sikorsky helicopters in the earlier years of the conflict. In comparison with today's helicopter, these were primitive, awkward-looking aircraft. The Navy used these ugly duckling choppers as spotters for artillery fire, to fly emergency supply runs, and in direct combat duties. Later, the helicopter was used as a cargo transport between ships during underway replenishment, for search and rescue missions, and in antisubmarine warfare (ASW) exercises.

The Korean conflict also introduced the first use of helicopters for medical evacuation. They were used to transport wounded soldiers from the battlefield to Mobile Army Surgical Hospital (MASH) units and from these units to Navy hospital ships. In addition to the helicopter, many other innovations currently used by the Navy were tested during this conflict. Some of these innovations included the introduction of Navy jets for air combat and the first use of air-to-air missiles. The first surface-to-air Terrier missile was also tested. In June of 1952 the keel of the world's first nuclear-powered submarine was laid.

One of the most notable events of the Korean conflict came on 15 September 1950 when U.S. amphibious landings at Inchon began. Besides the protection U.S. Navy ships provided for these landings with massive shore bombardment, the battleship *Missouri* successfully shelled inland supply roads far ashore. This successful operation cut the enemy's communications, split its forces, and dissolved resistance in the area. The operation demonstrated a new concept of sea power—the Navy's ability to intervene successfully in a ground operation.

The Korean conflict ended in July 1953.

VIETNAM CONFLICT

During the Vietnam conflict, five attack carriers were deployed to the western Pacific (WESTPAC), with three of them constantly on line in the Tonkin Gulf area. Embarked carrier air wings furnished almost half of the total tactical effort in Vietnam. They destroyed or heavily damaged hundreds of military targets in North Vietnam. They also successfully suppressed land transport as well as waterborne logistic craft on rivers and bays and along coastal routes.

Sharing importance with attack carrier operations were amphibious operations on the coast of the Republic of Vietnam. Two amphibious ready groups with embarked Marine special landing forces were committed to the Vietnam effort. Each group was capable of conducting assaults over the beach by both landing craft and helicopter. More than 50 battalion-size amphibious operations were conducted after the initial landings in March 1965. The mobility of the amphibious groups and their readiness to strike on short notice kept the enemy off balance, disrupted logistical support, and denied the enemy the use of profitable coastal areas.

The Navy provided gunfire support from May 1965 until the end of the United States' involvement. Targets destroyed or damaged by the Navy included storage areas, military areas, missile sites, and railroads. The battleship USS *New Jersey* was recommissioned to provide increased capabilities in naval gunfire support. A heavy cruiser could fire an 8-inch projectile only 14 miles. Any one of the *New Jersey's* 16-inch guns could hurl a projectile four times the weight of the cruiser's projectile a distance of 20 miles. In addition, the projectile could penetrate 30 feet of reinforced concrete. After the successful completion of its mission, the *New Jersey* was again decommissioned. Realizing the peace-keeping effort these ships contribute to the world, the United States recommissioned the *New Jersey* and three other battleships in the 1980s.

The Vietnam conflict exemplified the kind of war we can expect in the future—intermingling of the most primitive guerilla operations with the most advanced weapons. To counter this threat, the U.S. Seventh Fleet has provided dramatic evidence of the Navy's ability to project the national policy of the United States wherever water permits navigation.

PERSIAN GULF

The United States and other nations of the Western world together consume nearly three-fourths of the world's petroleum products. Therefore, the nations of the Western world have significant economic, geopolitical, and military interests in the countries and waters of the Middle East.

U.S. forces have been visible in this vital, oil-rich region since 1949. They frequently operate in the Persian Gulf, Gulf of Aden, Gulf of Oman, Red Sea, Arabian Sea, and western Indian Ocean. However, events in the Persian Gulf in the mid-1980s brought the United States into new roles in defending sea power.

Iran and Iraq had been at war for 5 years when Iraq began attacking Iranian oil facilities and tankers in the Persian Gulf. Iran countered with attacks against ships flying flags sympathetic to Iraq. U.S. Navy ships quickly started protecting U.S. flagged tankers from attacks by either country in what came to be known as the "tanker war."

In 1987 the United States took action to keep oil flowing freely through the Straits of Hormuz. As a result, the number of Middle East ships more than doubled over the summer of 1987 from 5 to 12. USS *Ranger* (CV-61) and USS *Missouri* (BB-63) battle groups, mine countermeasure teams, and special warfare units joined other forces already in the area. These combined forces became America's largest deployed naval presence since the Vietnam era. The British, French, Italians, Belgians, and Dutch eventually joined their American counterparts in the Persian Gulf. Working independently, each navy displayed its own colors, protected its own shipping, and helped sweep mines from shipping lanes.

Even though the protective forces grew, ships traveling in the Persian Gulf were under the constant threat of attack. Danger existed from fighter aircraft of both sides; Iranian Silkworm antiship missiles; Iran's Revolutionary Guard suicide boats; and, of course, mines.

The missile threat proved costly to the United States when the USS *Stark* (FFG-31) was mistakenly identified by an Iraq attack aircraft. Two missiles fired from the jet struck the *Stark* on 17 May 1987, killing 37 sailors and injuring many more.

Mines had not been a serious threat to naval operations for several years, but the Iranians' use of mines brought a new awareness of their danger. On 14 April 1988 USS *Samuel B. Roberts* (FFG-58) hit a mine in the Persian Gulf and suffered severe damage. Since several tankers had also hit mines, the Navy had already intensified its mine-sweeping efforts.

In the process of defending the sea lanes in the Persian Gulf, the presence of the United States was largely a defensive measure. When forced to take offensive action, the United States bombarded an Iranian oil platform being used as an Iranian Revolutionary Guard command post (fig. 1-2). American fire power also sunk an Iranian mine-laying vessel caught in the act of laying mines. The American policy of freedom of the high seas was once again preserved in the Persian Gulf. As the war ended between Iran and Iraq in 1989 and tensions subsided, the naval presence of the United States decreased but never disappeared.

IMPORTANCE OF SEA POWER

To fully understand the importance of sea power, you must consider the geographic makeup of the earth. Ocean areas are so extensive that all landmasses on earth are open to attack or pressure from the sea. This attests to the broad impact of sea power.

Today the globe can be spanned by nuclear-armed missiles in a mere 15 minutes. However, in war or peace the Atlantic and Pacific Oceans remain wide barriers to international and domestic commerce. Any significant amount of manpower, strategic supplies, raw materials, or manufactured goods must still cross these barriers in 20-knot ships.

Although the United States faces both the Atlantic and Pacific Oceans, the Atlantic has been of primary interest to this nation since its independence. Encompassing 32 million square miles, the Atlantic is the second largest ocean in the world; but its size is not its most important feature. More vital is the community of nations that border the Atlantic. Bordering the north are the industrial centers of our Western civilization. Bordering the south are the resource-rich, emerging nations of Africa and Latin America. The Atlantic is the main highway of commerce binding together the old and new nations that conduct more than two-thirds of the world's merchant shipping. This makes the North Atlantic the most heavily traveled stretch of water in the world. More than 2,000 merchant vessels are steaming North Atlantic trade routes every day of the year.

In size, however, the Atlantic Ocean is small when compared to the Pacific Ocean. Unequaled in vastness by any other landmass or sea, the Pacific Ocean covers 67 million square miles. It covers a third of the surface of the world, equaling the combined areas of the Atlantic, Indian, and Arctic Oceans. The Pacific Ocean also exceeds in area the total of all the landmasses of

134.1

Figure 1-2.—U.S. ships blowing up oil platform in the Persian Gulf.

the world. The north-to-south span of the Pacific is more than 75,000 miles. The Pacific separates Asia and North America by only 67 miles at the northern extremes. These two continents veer sharply away from each other at the southern extremes with more than 10,500 miles of the Pacific Ocean between them. By its very size, the Pacific influences the strategic thinking and planning of every nation bordering it.

A third ocean bordering the North American continent has achieved strategic importance because of the development of nuclear power. Nuclear submarines can remain submerged under the polar ice pack for long periods of time. Therefore, their entry into the Arctic Ocean has made this a 5.5-million-square-mile potential battleground. The Arctic Ocean is also important because the Soviet Union's longest coastline borders it. Since the Arctic Ocean has become a naval operating area, the whole Eurasian continent, including the Soviet Union, has become vulnerable to sea power. The southern borders of the Eurasian continent have always been susceptible to pressure from the sea.

For centuries, the Indian Ocean has been an arena for competing sea powers vying for the riches of south Asian and Middle Eastern shores. Twenty-eight million square miles of the Indian Ocean stretches from Malaysia to Africa, countries that occupy a third of the world's population.

Most of the populated land areas of the world are no more than 500 miles from the sea. In the event of armed conflict, virtually no spot on earth is beyond the range of attack from the sea. This is the most profound change in the total history of warfare. Sea power can be deployed over three-fourths of the earth's surface unhampered by international boundaries. The sea is unowned—but it is jointly owned by all sovereign nations.

Because the sea is so important in the event of armed conflict, the U.S. Navy needs to remain strong. However, a strong Navy is also important in support of our national objectives for the following reasons:

- Two of our states (Hawaii and Alaska) are located overseas.

- Four U.S. territories (Puerto Rico, the Virgin Islands, Guam, and the northern Marianas) lie overseas.

- We have formal alliances with 42 nations, 40 of which lie overseas and two (Canada and Mexico) that border the United States.

- Our principal allies (NATO and Japan) are highly dependent on United States support and imports, the bulk of which must be transported by sea.

- Ninety-nine percent of United States' overseas trade is transported by sea lanes of communication (world trade routes).

- U.S. industrial output depends on continued shipments of raw materials and energy-producing resources from overseas.

- Our ability to control the sea is essential in the deterrence of general war and aggression against any nation or area vital to our interest.

SEA POWER IN SUPPORT OF OUR NATIONAL OBJECTIVES

One of the greatest concerns of those in the naval service is the Navy's mission, function, and role involving sea power in support of the national objective of the United States. The younger sailor often asks questions such as Why are we getting underway? What is the purpose of this deployment? Why are we operating on the other side of the world?

To understand the answers to these questions, you need a good understanding of the Navy's mission. You also need to understand the functions and roles the Navy plays in support of this mission.

MISSION OF THE NAVY

The mission of the U.S. Navy is set forth in Title 10 of the U.S. Code. It states that the U.S. Navy must be prepared to conduct prompt and sustained combat operations in support of the national interest. This means the Navy must assure continued maritime superiority for the United States. The U.S. Navy must be able to totally defeat any threats to the continued free use of the high seas by the United States. The Navy assures continued maritime superiority through the destruction of hostile aircraft, surface ships, and submarines that threaten seaborne forces of the United States and our allies. This mission is carried out within the framework of the national strategy, in joint coordination with the other services, and in combined planning with U.S. allies.

To fully understand the Navy's mission, you should be familiar with the following terms:

> NATIONAL STRATEGY—National strategy is that broad course of action designed to achieve national objectives in support of national interests. The United States maintains defense forces to preserve its physical security and protect its political independence. The ability of the defense forces to satisfy this objective depends on their capacity to deter aggression and to prevent coercion. It also depends on their capacity to exercise a degree of influence to shape world events in a manner conducive to U.S. interests.
>
> NATIONAL OBJECTIVES—National objectives are specific goals our nation seeks to advance, support, or protect identified national interests. These goals can be categorized as political or economic objectives or as objectives of security.
>
> NATIONAL INTERESTS—National interests are generalized conditions, frequently of a continuing nature, the pursuit or protection of which is perceived to be advantageous to the nation. They range from the ultimate interest, national survival, to specific regional interests that determine the importance of a region to the security of the United States.
>
> NAVAL STRATEGY—Naval strategy is the use of naval forces (including naval aviation and Marine forces) to achieve naval objectives that are determined by national strategy. The overall naval-strategy objective is to control the sea and deny an enemy's use of the sea in those areas important to our operations.

FUNCTIONS OF THE NAVY

The primary functions of the Navy and the Marine Corps are to organize, train, and equip Navy and Marine Corps forces to conduct prompt and sustained combat operations at sea. Operations include sea-based aircraft and land-based naval air components. In effect, these forces seek out and destroy enemy naval forces and suppress enemy sea commerce. They gain and maintain general naval supremacy, control vital sea areas, and protect vital sea lines of communications. They also establish and maintain local superiority in land and air operations and seize and defend advanced naval bases.

The Navy also provides forces for joint amphibious operations. It is responsible for training all forces assigned to these operations in amphibious warfare as directed by Joint Chiefs of Staff. Other specific responsibilities assigned to the Navy are naval reconnaissance, antisubmarine warfare, protection of shipping, minelaying, and controlled minefield operations. In conjunction with the other services, the Navy provides forces for the defense of the United States against air attack.

Because of the complexity of the Navy's function, a massive modernization of Navy ships, aircraft, and weapons has been undertaken. Basically, the modernization has taken three forms: (1) the speedup of research and development to develop new weapons; (2) laying up of old ships to save operating and overhauling costs, thereby directing this money into new construction; and (3) the "hi-low balanced mix" concept. This hi-low concept is a balance in the purchase of a few highly effective ships and aircraft, such as CVNs, SSBNs, and F/A-18 aircraft, with a concurrent development of new classes of low-cost ships, such as guided-missile frigates.

The Navy has entered a new phase of scientific warfare—one in which nuclear weapons and guided missiles are the primary destructive weapons. Conventional weapons, of course, are still maintained and being improved. Such weapons enable the Navy, with its Marine component, to deploy rapidly and to apply the force necessary to contain a limited war.

The Navy's achievements in the development of scientific projects continue to lead the world. These achievements range from earth navigation and communications satellites to the improvement of nuclear propulsion. The Navy's Polaris missile, operational in nuclear-powered submarines at sea, was the first intermediate-range ballistic missile (IRBM) to be equipped with the solid-propellant motor. The Poseidon and Trident missiles, which have extended range and multiple warheads, were developed following the success of the Polaris missile. They have since replaced the Polaris.

Other Navy achievements include pioneering new developments in communications, navigation, underwater acoustics, oceanography, and a host of other scientific fields. One particular achievement is the successful pioneering of the route from the Pacific to the Atlantic beneath the North Polar ice cap.

The Navy has divided its mission into four functional areas: (1) strategic deterrence, (2) sea control, (3) projection of power ashore, and (4) naval presence.

Strategic Deterrence

Strategic deterrence has three objectives. The first of these is to deter (prevent or discourage) an all-out attack on the United States or its allies. The second objective is to cause any possible attacker to face an unacceptable risk in the event of an attack. The final objective is to keep the United States and its allies politically stable and secure enough to withstand the threat of attack or blackmail.

How does the Navy accomplish the objectives of strategic deterrence? First, the Navy maintains an ASSURED SECOND-STRIKE CAPABILITY. This means that if an enemy were to launch an all-out attack, the United States could deliver massive retaliation (counterattack) even after the attack. The Navy's fleet ballistic missile submarines (nuclear) (SSBNs) are the backbone of this tactic because of their high probability of surviving a nuclear attack. Second, the tactic of CONTROLLED RESPONSE is used. This means that the Navy will respond to a partial attack *only* to the degree required. This is hoped to prevent a general nuclear war. The SSBN fleet is also the backbone of this tactic.

Sea Control

Our nation's definition of sea control is denying the use of the sea to our enemy and assuring the use of the sea to the United States and its allies. In today's world, sea control can be exercised only over limited areas of the sea.

Although sea control is accomplished by four tactics, many weapons and weapons systems can be used with these tactics. The correct tactic and weapons systems to be used depends on the situation. The four tactics used to accomplish sea control are as follows:

1. SORTIE CONTROL is used to keep an enemy within ports and bases. As the enemy

attempts to sortie (go on missions), the enemy units are destroyed. Submarines and mines are often used with this tactic.

2. CHOKEPOINT CONTROL is used to prevent the enemy from going through geographical bottlenecks. The enemy must concentrate forces when at these points and is, therefore, vulnerable to attack.

3. OPEN AREA OPERATIONS are used when the tactics above do not work or if the enemy is already underway at sea or in the air. Search and surveillance systems are used to locate and track the enemy before attacks.

4. LOCAL ENGAGEMENT is the final tactic. This tactic involves a concentration of forces in a limited area. These forces may attack and destroy any enemy when it enters the range of their weapons either before or after an attack.

Historically, the Navy's radius of action has been limited to the enemy's coastline, plus the range of the ship's guns. With the development of high-performance aircraft and ballistic missiles, the Navy's range of action now spans continents.

Ships, because of their mobility, are less accessible targets than shore bases. Furthermore, as a partial deterrent to the destructive capabilities of nuclear weapons, the dispersal concept has been added to fleet doctrine.

Projection of Power Ashore

This functional area involves the impact of naval forces on land forces. Three types of actions are used to project power ashore: AMPHIBIOUS ASSAULT, NAVAL BOMBARDMENT, and TACTICAL AIR PROJECTION.

Although amphibious assault and naval bombardment are probably familiar to you, tactical air projection may not be. Tactical air projection is divided into four categories:

1. DEEP INTERDICTION—This tactic involves carrier-based air attacks outside the battle area. These attacks are designed to destroy or cripple the enemy's military potential.

2. BATTLEFIELD INTERDICTION—This tactic involves carrier-based air attacks on military targets of immediate importance. These attacks are used to slow the enemy's movement of supplies and reinforcements.

3. CLOSE AIR SUPPORT—This tactic provides direct support to front-line ground troops by specially trained Marine Corps air units. It usually involves precision attacks on targets just ahead of the front-line troops.

4. COUNTER AIR/ANTIAIR WARFARE—This tactic is designed to keep the enemy from using aircraft or missiles to attack our forces or defend the enemy's forces. It involves attacks on enemy aircraft, missile installations, and air fields.

Naval Presence

Naval presence is the use of naval forces for political objectives without war. Generally, it consists of PREVENTIVE DEPLOYMENTS and RESPONSIVE DEPLOYMENTS.

Preventive deployments are a show of force during peacetime to indicate the capability of the Navy's forces. Responsive deployments are an indication of the response of the Navy to a crisis situation.

In either case, the presence of the Navy is a threat of action. This threat does not have to be spoken. Hopefully, the mere presence of the Navy will be enough to cause the problem to disappear. United States forces can use these deployments to reassure allies and deter possible aggression from potential enemies.

All of these tactics are designed to accomplish the mission of the Navy—preparedness to conduct prompt and sustained combat operations at sea.

THE SOVIET THREAT

Before a nation can make any strategic plans for the employment of its forces, it must consider who or what its threat or opponent might be. It can then analyze the opponent or threat and make plans to counter any opposition that arises. For the United States, the Soviet Union and the Warsaw Pact nations are considered to be a threat.

SOVIET MILITARY THREAT

The Communist party of the Soviet Union is concerned with the nature of a possible future war. The military doctrine of the Soviet Union is to prepare the country and its armed forces for conducting such a war. The Soviets view war as an extension of politics and therefore emphasize offensive operations. A Soviet victory in either a conventional or nuclear war would neutralize the influence of NATO on world politics. It would also end the political structure of the United States as we know it today.

Soviet leadership understands that in addition to maintaining strong offensive capabilities, an equally strong defensive posture is needed. The Soviet Union maintains a massive arsenal of military weaponry and a sizable number of military personnel to use these weapons. The Soviet preparedness is a threat that should not be taken lightly. As part of the free world, we should learn the capabilities of the Soviets and stay abreast of the changes in their systems and equipment. For a comparison of U.S. and Soviet military assets, see figure 1-3.

SOVIET POLITICAL THREAT

The Soviet political threat lies in the nation's political policy of spreading communism to Third World countries. While the Soviets maintain a strong influence over Warsaw-Pact nations, they exert even more influence on Third World

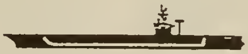
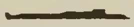
PLATFORM	UNITED STATES	RUSSIA
ICBMs	1,000	1,386
SLBMs	560	978
STRATEGIC BOMBERS	372	888
STRATEGIC DEFENSE INTERCEPTORS	252	2,250
TACTICAL AIRCRAFT	3,976	5,170
AIRCRAFT CARRIERS 	15	4
PRINCIPAL SURFACE COMBATANTS	223	276
OTHER COMBATANT SHIPS	80	408
AUXILIARIES	130	311
SUBMARINES 	132	308

Figure 1-3.—Comparison of United States and Soviet military assets. Figures are approximate, based on information available at the time of writing.

countries. While seeking the promised benefits of communism, these countries often fail to realize the future price they will pay for accepting the Communist regime. The Soviet Union has spread its influence all over the world, establishing puppet states in such places as North Korea, Vietnam, Cuba, Nicaragua, and Peru.

In December of 1979 the Soviets invaded Afghanistan in an unsuccessful attempt to dictate to a sovereign nation through the introduction of Soviet troops. On 15 February 1989 the last Soviet troops were withdrawn from Afghanistan. The Soviet Union seriously miscalculated the ability and determination of Afghan Resistance Forces to defend their country against communism.

In March of 1985 Mikhail Gorbachev assumed the post of General Secretary of the Communist party. Under his leadership a new policy of *glasnost* has been adopted. Although glasnost is interpreted by some in the West to mean openness, its meaning to the Soviets is publicity or officially managed perceptions. Under this policy, the Communist party still maintains control over the media. However, the regime selectively allows more complete reporting of ''negative'' domestic news and foreign policy issues previously suppressed by Soviet censors. The regime has also significantly loosened the restrictions on cultural expression, tolerating a much wider range of themes in literature, film, theater, and art. The Soviet leadership has continued to crack down on alcohol, drug abuse, and other manifestations of what Gorbachev calls ''social corrosion.'' Nevertheless, the Communists still prohibit public debate on certain topics, such as the primary influence of the party in national life, the KGB, and some human rights issues.

Whether glasnost will alter the Soviet political threat remains to be seen; however, these changes do bring hope.

THE SOVIET NAVY

Today's Soviet navy is larger, better equipped, and more balanced in structure than ever before. It is also far more capable of meeting the requirements of conventional or nuclear war at almost any level (fig. 1-4). Future Soviet naval policy and programs will be directed toward broadening the range of military and political options available. These options will span the entire spectrum of conflict, from peacetime competition to nuclear war.

The Soviets began the 1980s with the introduction of three new classes of surface warships, two new classes of attack submarines, and a new class of helicopters. The *Kirov* entered the Soviet fleet as its first nuclear-powered surface combatant. Also entering the fleet was the ASUW-oriented Sovremennyy-class guided-missile destroyer (DDG) and the ASW-oriented Udaloy-class DDG. Among them, these three classes introduced six new weapons systems: The Kirov's SS-N-19 antiship cruise missile (ASCM) and SA-N-6 surface-to-air missile (SAM); the Sovremennyy's medium-range SS-N-22 ASCM and SA-N-7 SAM

134.3

Figure 1-4.—Soviet warships.

and new 130-mm dual-purpose, twin-gun mount; and the Udaloy's SA-NX-9 SAM.

Presently, the Soviet navy includes about 185 surface combatant ships and craft carrying surface-to-surface missiles. In addition, nearly 70 of the navy's submarines carry subsurface-to-surface missiles. The Kirov and Slava cruisers (introduced in 1982) and the Sovremennyy DDG's have greatly increased cruise-missile firepower. They carry antiship missiles with performance characteristics that make offensive tactics increasingly difficult.

Also entering the fleet during 1980 were two general-purpose submarines classes, the Oscar I (fig. 1-5) and the Kilo. Those in the Oscar I class are nuclear-powered, cruise-missile attack submarines (SSGN). They have slightly over three times the displacement of their functional predecessors, the Charlie II-class SSGNs, and can carry 24 ASCMs. In wartime, the Oscar I-class submerged-launch SS-N-19 ASCMs will be targeted primarily against NATO carrier battle groups. In contrast, the Kilo-class diesel-electric attack submarines (SS) are relatively small (about 3,000 metric tons). These submarines rely on antisurface or ASW torpedoes and were designed for operations primarily in sea areas near the Soviet Union.

The Oscar I and Kilo classes of attack submarines are noteworthy in that they typify recent Soviet naval construction trends. Specifically, the Soviets have continued building naval platforms capable of operating in the open ocean. They have built these vessels without sacrificing those designed to perform the Soviet navy's traditional coastal defense mission. These vessels demonstrate marked improvements in submarine quieting. This feature reduces their noise level under certain operating conditions, while improving their effectiveness against opposing submarines.

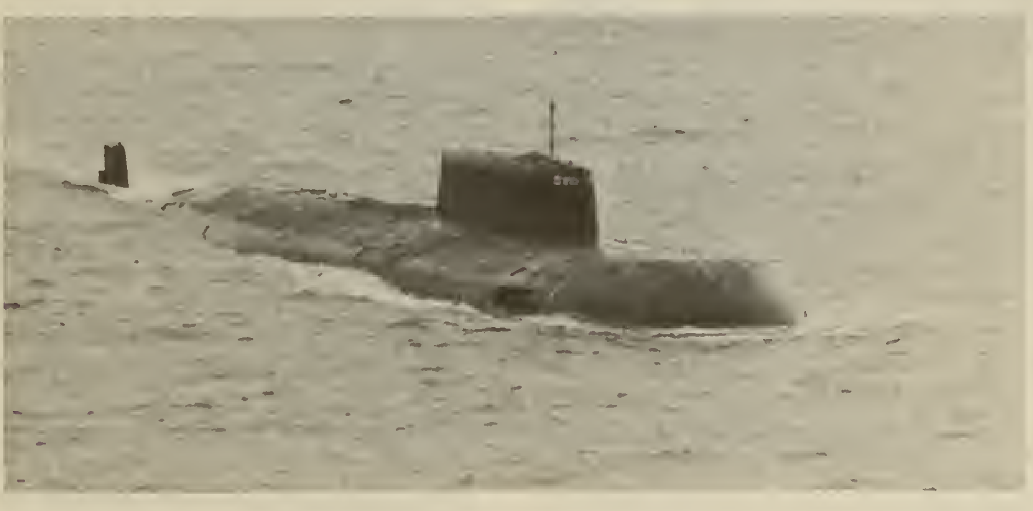
Improvements of existing ASW aircraft evolved into the production of the Helix A and the Helix B ship-based helicopter and the long-range Bear F Mod 4. Similar improvements in ships designed primarily for ASW have also been observed. Even the largest modern Soviet combatants, including the Kiev-class carriers and the Kirov-class CGNs, carry sensor and weapons suites (a group of systems). These suites include powerful low frequency sonars; ASW rockets, missiles, and torpedoes; and ASW helicopters.

The Soviets have expended considerable resources in recent years on developing ASW platforms and systems, particularly nuclear-powered attack submarines. However, they have not yet resolved the problem of locating Western submarines in the open ocean.

All things considered, the Soviets are a formidable naval power. They can be expected to increase their emphasis on making general-purpose naval forces more capable. They can also be expected to continue challenging the West's traditional dominance of the open oceans.

SOVIET NAVY PERSONNEL

Soviet navy personnel occupy a respected position within the Soviet society. Military service in the Soviet Union is regarded as a special form of service to the state. It is rewarded by



134.4

Figure 1-5.—Soviet OSCAR-I submarine.

continuous praise and commendation from Soviet public leaders and the press. Even more tantalizing to the average Soviet citizen, for whom foreign travel is basically impossible, is the opportunity navy personnel have to see the world.

Enlisted men are either 2-year or 3-year draftees; the latter term of service is required if the draftee is assigned sea duty. The Soviet Union does not draft women for military service. They are used in clerical and support positions. Soviet women are not considered to be an integral part of the armed services as are the service women of the United States.

Of approximately 443,000 uniformed personnel of the Soviet navy, about 169,000 serve afloat and 70,000 are attached to naval aviation units. In addition to the 18,000-man naval infantry force, another 14,000 are assigned to coastal defense activities. About 46,000 are engaged in various stages of training, and 126,000 are used to provide shore support. Additionally, a large number of civilians, perhaps as many as 30,000, form the crews of the majority of Soviet naval auxiliary ships.

Enlisted Personnel

The enlisted man of the Soviet navy is a draftee with limited training and little career inclination. Draftees are drawn from all the 16 republics within the USSR. Often those from Asian republics speak little Russian. Since draftees are inducted into the services twice a year, this means that every 6 months about 15 percent of the naval enlisted strength is replaced by recruits.

The new inductees undergo a 9-week basic training program, after which they are either sent to a specialist school or directly to a duty assignment. A small number of recruits that have previously completed a military specialist preparation course are sent directly to sea duty from basic training. Those judged physically or intellectually substandard are assigned to shore duty (as librarians, clerks, and so on). Approximately 75 percent of the personnel entering the navy undergo specialist training, after which they receive their first shipboard assignment.

Soviet technical training lasts from 4 to 6 months. Specialists graduate with an apparent understanding of the theoretical complexities of their own specialty but with little practical training. Consequently, enlisted personnel receive the more significant and practical training after they arrive on board ship.

Once aboard, these personnel are assigned to the more senior sailors who, along with the officers and warrant officers in their department, train them as replacements. The new specialists then begin their study for a class specialist rating of Master 1, 2, or 3. If a sailor passes the Master 3 specialist test, fulfills certain requirements of the Party Youth Organization (*Komsomol*), and has no disciplinary violations, he will be rated "outstanding" by the ship's captain. The number and class of specialists and the number rated outstanding are used as a measure in evaluating a ship's performance. Over 90 percent of all seamen are rated Master 3 specialists by the end of their first tour of duty.

The ability of the Soviet specialist is limited by inadequate school instruction and testing and the lack of facilities for intensive shipboard on-the-job training. Because of these shortcomings, the specialist is only able to perform routine maintenance and general operation of a limited range of equipment. The Soviets have alleviated some of these shortcomings by assembling most shipboard equipment using standard components and modules.

Officer Personnel

The Soviet navy faces a chronic shortage of senior enlisted personnel. The reenlistment rate averages under 10 percent, in part because of the national requirement that all males must serve on active duty in the Soviet armed forces. In an effort to overcome this shortage and to upgrade the status of a career serviceman, the Soviet navy introduced the rank of warrant officer (*michman*) in 1971. At completion of compulsory service, the Soviet sailor, if considered capable, is offered additional specialist and military training in a 2-year warrant officer school. In return he must reenlist for a 5-year period, which includes the time spent in schooling.

The warrant officer serves as the principal interface between officer and enlisted personnel. In this capacity the warrant officer has more responsibilities than a senior petty officer. As a result of more extensive training and experience, the warrant officer can relieve the officers of some of the more technical duties the enlisted person is not qualified to perform. Benefits increase considerably because pay, privileges, and leave offered to the warrant officer approach those of an officer. In addition, the warrant officer has the opportunity to achieve promotion to an officer rank after a number of years in service.

The regular sea-going Soviet naval officer is a career volunteer who has been carefully selected and is well trained and highly specialized. More often than not, the Soviet naval officer is a relative of a party official or another naval officer.

A majority of regular naval officers are now drawn from specialized naval schools. A small number begin as reservists after graduation from civilian universities, and a few others are promoted from the warrant officer ranks. A youth normally starts a naval career after a vigorous selection program as a cadet at one of 11 higher naval schools. The course of study is intense and lasts 5 years, with the graduates receiving a national engineering diploma and the rank of lieutenant.

Some Soviet officers begin their naval careers at about the age of 15 upon entering the Nakhimov naval school system. They then go into a higher naval educational institution upon graduation from the Nakhimov school. Upon graduation, regular officers are assigned to a ship for duty in the department that corresponds to their specialties (navigation, engineering, ASW, and so on). New officers usually spend the first 3 to 6 years of their career in the same department aboard the same ship, or at least in the same class of ship. During this period new officers earn a classification as a specialist in a technical pursuit. They must pass examinations to perform in various capacities as they progress through positions equivalent to assistant division officers, assistant department heads, and department heads.

Soviet naval officers are managers as well as technical specialists. The navy expects them to be able to do virtually everything their subordinates can do. In addition the navy expects its officers to instruct subordinates in their duties and to take care of their "ideological well being." Because of the general low level of technical competence of enlisted personnel, the Soviet officer tends "to do everything," even the most routine maintenance. Loyal party members give junior officers quite a heavy work load. Complaints are frequent; yet, in spite of the complaints, the typical Soviet officer appears to fulfill these duties adequately.

Several major deficiencies may be clearly discerned about the education and experience of Soviet naval officers. They spend the first part of their career as a specialist in a very narrow field, restricted to one department in one class of ship. As a result, junior officers lack the needed broad experience and versatility to function outside their specific field. Often only upon selection as executive officer do they begin to develop the broader experience necessary for more senior posts. The Soviet navy places strong emphasis on collective thinking and party-enforced discipline. Because of this emphasis, Soviet junior officers often lack personal initiative, independent ideas, and the willingness to take responsibility—leadership characteristics that are necessary for command. However, by virtue of their varied positions, education, and training from midcareer onward, officers finally selected for flag rank are both educated and experienced.

The base pay for Soviet officers initially appears nominal. Taken in combination with the total allowances and benefits that a Soviet military officer accrues, the real income is substantial. For example, naval officers are given significant additional pay for service in northern areas, for service in submarines and aircraft, for sea duty, and for command. The prestigious and privileged class of Soviet military officers receive extensive benefits, according to rank, well beyond those of the average citizen.

INTERNATIONAL TIES

The United States and the Soviet Union are without doubt the major sea powers of the world today. Even so, direct conflict between these two nations may not be necessary to start world conflict. Either nation's involvement in a major conflict may depend on its international ties with other less powerful nations.

The United States has over a period of many years established pacts and treaties with several nations. During and after World War II, the United States became part of an elaborate alliance system, committed to the defense of half the land areas of the world (fig. 1-6).

The North Atlantic Treaty Organization (NATO), established in 1949, is the best known of several treaties drawn up in the interest of mutual security. The terms of the treaty specify that "the parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all, and . . . each of them . . . will assist the other by taking, in concert with the other parties, such action as it deems necessary including the use of armed forces."

A corresponding agreement similar to NATO called the ANZUS (Australia, New Zealand, and United States) Treaty was established in 1952.

The earlier Rio Treaty (1947) had already committed the United States and the 20 independent Latin American nations to mutual defense. In addition, America made bilateral treaties with the Philippines, Nationalist China, South Korea, and Japan. By 1960 the United States was committed

NORTH ATLANTIC TREATY ORGANIZATION (NATO)

Signed at Washington April 4, 1949; entered into force for the United States August 24, 1949. States which are parties:

Belgium
Canada
Denmark
France
Germany, Fed. Rep.
Greece
Iceland
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Turkey
United Kingdom
United States

RIO TREATY

Inter-American treaty of reciprocal assistance. Done at Rio de Janeiro September 2, 1947; entered into force for the United States December 3, 1948. States which are parties:

Argentina
Bolivia
Brazil
Chile
Colombia
Costa Rica
Cuba
Dominican Rep.
Ecuador
El Salvador
Guatemala
Haiti
Honduras
Mexico
Nicaragua
Panama
Paraguay
Peru
Trinidad & Tobago
United States
Uruguay
Venezuela

ANZUS (SECURITY TREATY)

Signed at San Francisco September 1, 1951; entered into force for the United States April 29, 1952. States which are parties:

Australia
New Zealand
United States

Figure 1-6.—Treaties and pacts of which the United States is a member.

to the defense of some 45 sovereign nations besides its own territories. Even this total does not completely reflect the magnitude of the total defense problem for the United States armed forces.

Although NATO is still our number one alliance, our national strategy no longer focuses on the central front of Europe to the exclusion of other areas. Our strategy now recognizes with greater clarity the importance of the Norwegian northern flank. Likewise, it appreciates the importance of the Greek and Turkish southern flanks. It recognizes the importance of the Indian Ocean to our interests and the interests of our friends and allies around the globe. Finally, our new national strategy has begun to appreciate how critical the Far East is to our well-being.

Equally worthy of our concern is the long-term security of seaborne trade in the western Pacific. United States trade with Asian countries approximates its trade with Western Europe and is expected to continue to expand. The Asia-Pacific region has become an important strategic center, equaling that of Western Europe.

The United States and its allies, not the Soviets, are the nations who must exercise sea control in any conflict. We must also control the North Atlantic and beyond the Greenland-Iceland-United Kingdom Gap into the Norwegian Sea. The Soviets must never rest comforted in the belief that their northern bases and forces are invulnerable to attack from the sea. They are vulnerable, and we must keep them so.

SUMMARY

The two major navies in the world today are those of the United States and the USSR. The mission of our Navy is to be prepared to conduct prompt, sustained combat operations at sea in support of the national interests of the United States.

The peacetime mission of the U.S. Navy is to deter the outbreak of armed conflict in which our nation could become involved. The Navy deters such conflict through strategic nuclear deterrence and naval presence.

The wartime mission of the Navy has two basic functions: first, the Navy must be able to perform in a hostile environment; and second, it must exercise sea control and power projection.

The Soviet navy's policy is based on a Soviet drive to extend its national influence through the use of maritime activities. To support the Soviet objectives, the USSR has significantly improved its warship, aircraft, and weapons capabilities. The Soviets have made their presence felt through show-the-flag operations that include large increases in at-sea and distant deployment operations. They have committed themselves to developing and maintaining a navy ''second to none.''

This chapter has presented an interesting parallel between the life of Soviet sailors as compared to that of the American sailors. It has also presented some of the differences of the military efforts and forces of the United States and the USSR.

The Soviets have achieved significant advantages in strategic, nuclear, and conventional capabilities. This achievement is a result of two decades of steadily increasing Soviet military expenditures, coupled with a long period of Western restraint. These advantages have led directly to increased risks to free-world security. Strong U.S. leadership and the sustained support of U.S. defense programs and coalition measures are essential for the United States to meet the challenges ahead.

International ties between the United States and its allies have resulted in the United States being committed to the defense of many sovereign nations throughout the world. The purpose of these elaborate alliance systems is to prevent armed aggression against allied nations. An armed attack against one or more of these allied nations shall be considered an attack against them all.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Military Requirements for Chief Petty Officer, NAVEDTRA 12047, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Navy Fact File, 8th ed., Office of Information, Washington, D.C., 1988.

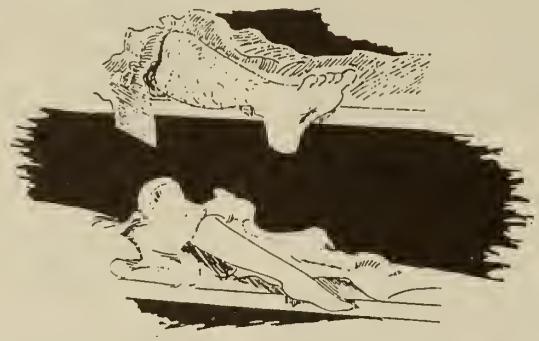
U.S. Department of Defense, Soviet Military Power: An Assessment of the Threat 1988, Washington, D.C., 1988.

SUGGESTED READING

Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

Miller, N., *The U.S. Navy: An Illustrated History*, Bonanza Books, New York, N.Y., 1977.

Polmar, N., *Guide to the Soviet Navy, Fourth Edition*, Naval Institute Press, Annapolis, Md., 1986.



SHOW A LEG

MANY OF OUR NAVY'S COLORFUL EXPRESSIONS ORIGINATED AS PRACTICAL MEANS OF COMMUNICATING VITAL INFORMATION. ONE SUCH EXPRESSION IS "SHOW A LEG."

IN THE BRITISH NAVY OF KING GEORGE III AND EARLIER, MANY SAILORS' WIVES ACCOMPANIED THEM ON LONG VOYAGES. THIS PRACTICE CAUSED A MULTITUDE OF PROBLEMS BUT SOME INGENIOUS BOSUN SOLVED ONE THAT TENDED TO MAKE REVEILLE A HAZARDOUS EVENT: THAT OF DISTINGUISHING WHICH BUNKS HELD MALES AND WHICH HELD FEMALES.

TO AVOID DRAGGING THE WRONG "MATES" OUT OF THE RACK, THE BOSUN ASKED ALL TO "SHOW A LEG." IF THE LEG SHOWN WAS ADORNED WITH SILK, THE OWNER WAS ALLOWED TO CONTINUE SLEEPING. IF THE LEG WAS HAIRY AND TATTOOED, THE OWNER WAS FORCED TO "TURN TO."

IN TODAY'S NAVY, SHOWING A LEG IS A SIGNAL TO THE REVEILLE PETTY OFFICER THAT YOU HAVE HEARD HIS CALL AND ARE AWAKE.

CHAPTER 2

MAKERS OF NAVAL TRADITION

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the importance of the Navy's first submarine.
2. Describe the events leading to the quasi-war with France.
3. Identify the effect of the Union blockade in the Civil War.
4. Recognize the importance of ironclad ships in the development of the naval warship.
5. Recognize the events of the Spanish-American War.
6. Describe the use of convoys in combating German submarines.
7. Identify the makers of naval tradition in World War II.
8. Identify the makers of naval tradition in the Korean conflict.
9. Identify the makers of naval tradition during the Vietnam conflict.
10. Describe the operations of the Persian Gulf.
11. Trace the role of women in the Navy.

MAKERS OF NAVAL TRADITION

A visitor to the Naval Academy at Annapolis is impressed by the innumerable reminders of our naval heritage. Here is found the memorial to John Paul Jones, which keeps alive his memory so that those who follow may go on with lasting inspiration. In Bancroft Hall hangs Oliver Hazard Perry's flag of blue, bearing in rough, white muslin letters James Lawrence's famous slogan, "Don't give up the ship." On all sides appear monuments and buildings commemorating the names and deeds of great American naval heroes. The wide brick walk, called Decatur Walk, leads to the Tripoli Monument. The gymnasium is known as MacDonough Hall, and the massive armory is named Dahlgren Hall. Other buildings bear names such as Luce Hall, Mahan Hall, Maury Hall, and Sampson Hall. All those for whom these monuments and buildings were named were makers of naval tradition.

AMERICAN REVOLUTION

SIGNIFICANT DATES

13 Oct. 1775	American navy is formed.
5 Nov. 1779	John Paul Jones takes command of *Bonhomme Richard* in France.
4 Feb. 1779	Congress appoints Esek Hopkins as commander-in-chief of the fleet.
18 Jul. 1792	The "Father of the American navy," John Paul Jones, dies in Paris, France.

The revolutionary war was the only period in our history in which the United States lacked imported strategic materials. However, the resourcefulness of the small American navy and other Yankee mariners enabled General Washington to make up for this lack. The Royal Navy's low state of efficiency at that time contributed to the Americans' ability to compensate.

France, sympathetic with the rebellious colonies, entered the war on our side in 1778. Spain and Holland soon followed. The powerful French forces attacked British possessions in every part of the world. As a result, Britain's internal struggle against its colonies transformed into a world war that involved all the great maritime powers. The West Indies became the chief theater of naval activity, where British interests clashed with those of its enemies—France, Spain, and Holland.

The Continental navy that fought America's war for independence was small and weak compared with the hundreds of ships of the Royal Navy. Since fighting had already begun before the small navy was officially authorized, it was handicapped from the beginning. Converted merchantmen made up two-thirds of the ships of this makeshift force. The crews were drawn from merchant vessels, fishing craft, and even from the army. The country also had state navies, but they were made up of small vessels designed for river and harbor defense. Swarms of American privateers (privately owned craft outfitted for war) also engaged in the fight against the British. The multiple forces involved made coordinating fleet and squadron maneuvers difficult. The men leading these forces helped to overcome great obstacles. Some of these men and their accomplishments are described in the following paragraphs.

DAVID BUSHNELL

For almost 4 years, a young American named David Bushnell worked on the design of a

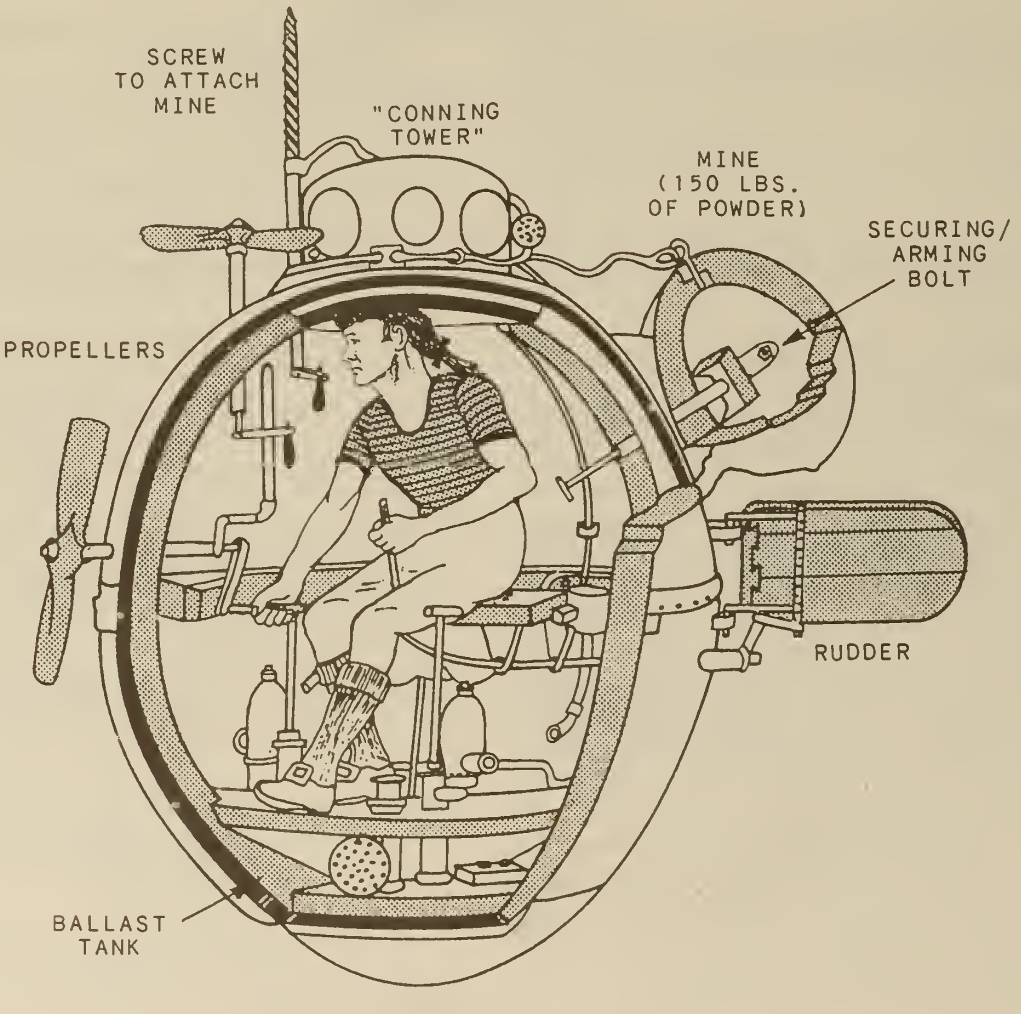


Figure 2-1.—The first submarine.

subsurface craft before finally completing it in 1775. Bushnell, a Yale medical student, hoped the craft would help drive the British away from American shores for good.

Bushnell described this first warfare submarine (fig. 2-1), named the *Turtle*, as having "some resemblance to two upper tortoise shells of equal size, joined together. . . ." It was 7.5 feet deep and, under ideal conditions, had a maximum speed of 3 knots. A single operator could stay submerged in the craft for 30 minutes.

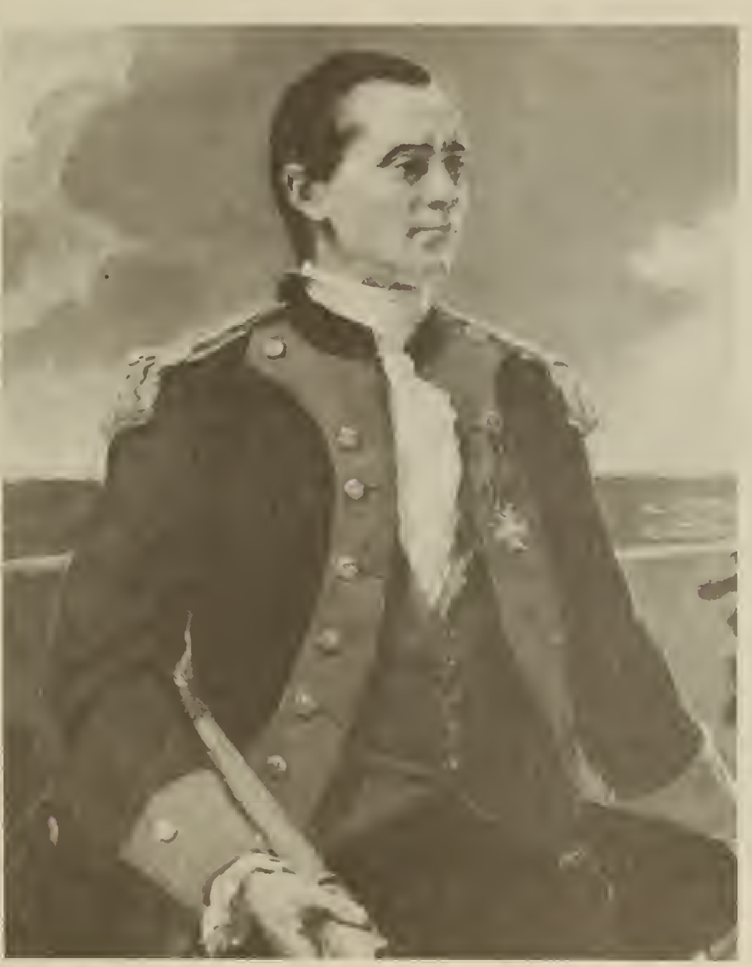
The *Turtle* was armed with an oak casing filled with 150 pounds of explosives. This charge could be attached to the bottom of an enemy ship where it would remain until detonated by a simple clockwork mechanism.

After completing the submarine, Bushnell took it for several dives to prove its seaworthiness. Finally, on 6 September 1776, he was ready to use it against the British in New York harbor. Sergeant Ezra Lee, a volunteer from the Connecticut militia, maneuvered the *Turtle* by using hand-operated screw propellers. The plan was for Sergeant Lee to use screws to attach a time-fuse charge of gunpowder to a ship's hull. The mission was aborted when the auger could not penetrate the copper sheathing on the hull of Admiral Howe's flagship, the HMS *Eagle*.

Bushnell made a couple of more attempts to use the *Turtle* against the British in the Delaware River. These times he tried attaching mines to the *Turtle* and floating them against the enemy ships. These attempts failed, and the British finally sunk the submarine in New York harbor (the first recorded instance of an antisubmarine attack).

JOHN PAUL JONES

Emerging from the revolutionary war was one of the Navy's greatest heroes and tradition makers, John Paul Jones (fig. 2-2). Jones



134.4

Figure 2-2.—John Paul Jones, father of our highest naval traditions, represents the seaman, leader, officer, and gentleman at their best.

portrayed many of the traits a nation commonly attributes to a great leader.

This sailor of fortune was born in Scotland in 1747. As a youth he served several years as a midshipman in the Royal Navy and studied both seamanship and English by the forecastle lamp. His concept of what an American naval officer should be is evident in his statement, "None other than a gentleman as well as a seaman both in theory and practice is qualified to support the character of a commissioned officer in the Navy nor is any man fit to command a ship of war who is not also capable of communicating his ideas on paper, in language that becomes his rank." His attitude on peace and war appears frequently in his writings: "In time of peace it is necessary to prepare, and be always prepared, for war at sea." He added, however, "I have always regarded war as the scourge of the human race."

Of Jones' many contributions to the Navy's great traditions, none stands out more than his refusal to acknowledge defeat. After the classic action between Jones' ship, the *Bonhomme Richard*, and the British frigate, *Serapis*, Jones reported he faced an enemy of greatly superior force. *Bonhomme Richard* was an old, converted merchant hull mounting about 40 guns, of which only 6 were 18 pounders. James Fenimore Cooper, in his *History of the Navy of the United States of America*, compared the ship's gun capacity to that of a 32-gun frigate. The *Serapis*, rated as a 44-gun frigate, mounted 50 guns and was new and superior in maneuverability to the *Bonhomme Richard*.

When the first broadside was fired, two of Jones' 18 pounders burst, causing the crew to abandon the rest of these guns. The battle then became a contest between a battery of 12 pounders and a battery of 18 pounders. Several more broadsides, delivered at close range, soon reduced *Bonhomme Richard* to a critical state. The ship's hold was flooded with 3 feet of water, the heavy guns were out of commission, and half the crew had been killed or wounded. In addition, the rudder and rigging had been shot away and fires were fast approaching the magazine. At that point Captain Richard Pearson of the *Serapis* called to Jones, asking whether he had struck his colors. Though barely able to keep afloat, Jones thundered back his famous answer, "I have not yet begun to fight." These fighting words inspired his men with the determination to win.

After fighting for nearly 4 hours, the British surrendered; since no one else dared venture on deck, Captain Pearson himself hauled down the colors on his battered ship. The spirit of the offensive and the will to gain victory were never better demonstrated than by John Paul Jones. His immortal words "I have not yet begun to fight" inspire Americans today as they did over 200 years ago.

Jones' victories were not accidents. In moments of stress, he mingled with his crew, cheering them on. A shipmate once said of Jones, "He was in everybody's watch and everybody's mess [deck] all the time. In fact, I may say that any ship John Paul Jones commanded was full of himself all of the time."

After losing the *Serapis*, Captain Pearson at his court-martial made an amazing and illuminating statement about Jones:

> Although more than half the crew were French—at any rate not Americans—long before the close of the action it became apparent that the American ship was dominated by a commanding will of the most unalterable resolution, and there could be no doubt that the intention of her commander was, if he could not conquer, to sink alongside. And this desperate resolve was fully shared and fiercely seconded by every one of his ship's company. And if the Honorable Court may be pleased to enter an expression of opinion, I will venture to say that if French seamen can ever be induced by their own officers to fight in their own ships as Captain Jones induced them to fight in his American one, the future burdens of His Majesty's Navy will be heavier than they have heretofore been.

Lord Sandwich, first Lord of the British Admiralty, wrote to one of his commanders, "For God's sake get to sea immediately. If you take Paul Jones, you will be as high in the estimation of the public as if you had beat the combined fleets." Such was the British evaluation of the American navy's greatest combat leader.

WAR WITH FRANCE

SIGNIFICANT DATES

14 Jul. 1813	LT John M. Gamble, USMC, becomes first Marine officer to command a ship in battle.
10 Sep. 1813	Oliver Hazard Perry, in Battle of Lake Erie, defeats a British naval squadron for the first time in history.
8 Jan. 1815	United States wins Battle of New Orleans.
22 Mar. 1820	Commodores Stephen Decatur and James Barron duel near Washington, D.C., resulting in Decatur's death. Dueling in the Navy is outlawed following that incident.
16 Dec. 1835	Greatest fire in history of New York City occurs; firemen are aided by the Navy and Marines.
14 Feb. 1840	Several officers and mascot dog from USS *Vincennes* relax on floating ice after arriving in Antarctic regions; they are first Americans to enter that region.

After the revolutionary war, the fortunes of the navy declined, and by 1785 its last ship had been sold. Little remained except fighting traditions. When the U.S. Constitution went into effect in 1789, the War Department was charged with directing both the army and the navy. At that time these forces consisted of only a few hundred soldiers and no ships or marines.

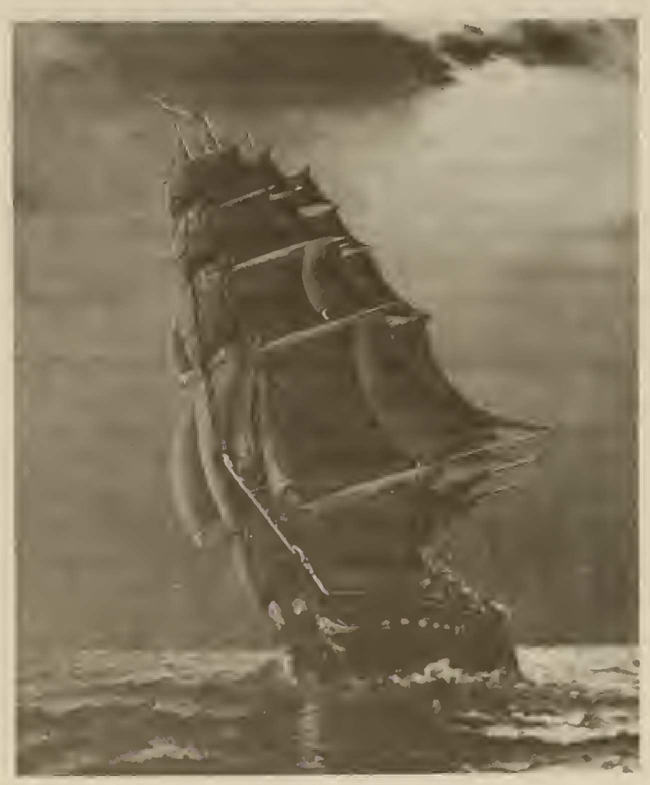
This absence of naval strength soon proved disastrous because Barbary pirates began capturing our merchant ships and imprisoning their crews. In 1794 public sentiment moved Congress to authorize the building of six frigates to protect our interests. Thus, the United States Navy was permanently established under the Constitution.

The makers of naval tradition during this period were responsible for some vast improvements in our conventional Navy. These improvements, which helped to make the Navy more powerful, included more advanced ship designs and better leadership.

JOSHUA HUMPHREYS

President Washington appointed Joshua Humphreys, a Philadelphia Quaker, to design the first six frigates of the new U.S. Navy. He thus became our first naval constructor. A technical genius, Humphreys was also a farseeing student of naval history who exerted a tremendous influence upon the U.S. Navy. He believed our "vessels should combine such qualities of strength, durability, and swiftness of sailing, and force as to render them superior to any frigate belonging to the European Powers." Departing from conventional standards, he designed the best frigates that sailed the seas—frigates that could run or fight at will and fight on their own terms. His chief innovations provided for heavier batteries; thicker timber; finer lines; and longer, stouter spars than those of frigates of other powers. Several years later the Royal Navy paid a compliment to Humphreys' skill by constructing frigates according to his designs.

Humphreys drew up plans for the six famous frigates, the *United States, Constitution* (fig. 2-3),



134.5

Figure 2-3.—The new and radical USS Constitution, built for speed and firepower, helped to rid the Mediterranean of the Barbary pirates.

Constellation, *President*, *Chesapeake*, and *Congress*. Two of these ships, the *Constitution* and the *Constellation*, are still afloat! In building them, Humphreys broke sharply with current naval ideas. He displayed virtues of great value to any nation—a friendliness to innovation and a willingness to experiment.

OPENING HOSTILITIES

Enemies other than the Barbary pirates soon harassed the defenseless United States. Both France and England, then engaged in a war, began to plunder American merchantmen. While a treaty with Great Britain relieved the conflict with that country, our relations grew worse with France, who charged us with treaty violations. The capture of men and ships continued as French privateers began operating near American harbors.

The actions of the French privateers aroused Congress to take immediate and vigorous action. In 1798 Congress established the Navy Department and appointed Benjamin Stoddert of Georgetown, Maryland, as the first Secretary of the Navy. Again, as had happened during the revolutionary war, a fleet had to be created with war already in progress. Our small Navy, therefore, was immediately expanded as numerous naval officers were appointed for active duty. Recruiting officers in the main ports along the Atlantic coast began a drive to enlist seamen.

Although no official war was declared, Congress authorized the Navy to retaliate. The Navy was ordered to seize any armed French vessels within the jurisdictional limits of the United States or on the high seas. The quasi-war with France had begun.

This naval war, waged mainly in the Caribbean, was so costly to France that the French Directory was ready to sue for peace by 1801. Thomas Truxtun, another naval leader who endowed the Navy with great traditions, was largely responsible for this American victory.

THOMAS TRUXTUN

> Care for your men; see that each understands his duties; exact instant obedience; superintend everything; practice daily with the guns.
>
> —Thomas Truxtun

Captain Truxtun (fig. 2-4), an expert seaman and a strict disciplinarian, devised this simple philosophy for attaining victory over an enemy. The fame of this outstanding officer is derived principally from his defeat of the French ships *Insurgente* and *Vengeance*. However, he is best remembered for his basic philosophy about the relationship between officers and their men, as shown by the example he set.

Enlisted men, looked upon during this time as fighting mechanisms rather than as human beings, were often punished savagely and without justice. Captain Truxtun began to change that image. He insisted his officers treat their men courteously but firmly and that the men respect and obey their officers. Concerned officers and respectful enlisted personnel in today's Navy still follow Captain Truxtun's example.

In language that could not be misunderstood, Captain Truxtun wrote the following to his officers:

> It is not to be expected that the Lieutenants of Ships are to remain idle and indifferent spectators of what is going on, but on the contrary it is absolutely necessary that they overlook the duty of every department on board.
>
> An officer in carrying on his duty should be civil and polite to everyone, for civility does not interfere with discipline.
>
> An officer is never to lose sight of the humanity and care that is due to those who may really be sick or otherwise stand in need of his assistance.

Truxtun's attitude toward his men resulted from his experience during the revolutionary war as a successful privateer captain working closely with the Navy. He could not help noticing and regretting that many naval officers, slack and indolent, cared too little about a taut ship. As a captain of the *Constellation* during the war with France in 1799, he found an opportunity to instill his own miliary spirit in his crews.

A dramatic act of bravery during Captain Truxtun's command of the *Constellation* showed the respect and loyalty he had earned from his men. The battle against the *Vengeance* began at 2000 and lasted until 0100. During that battle, a teenaged midshipman lived up to what the Navy calls "the highest traditions of the naval service." When a sailor told Midshipman James Jarvis that

134.6

Figure 2-4.—"Take care of your men." Captain Truxtun insisted on justice and consideration for enlisted men.

the mainmast was tottering and that he should come down before he was killed, Jarvis replied, "If the mast goes, we go with it. Our post is here."

The next roll of the ship sent the mast crashing and splintering over the side, throwing Jarvis far out into the black water to his death. In tribute to this boy's courage and discipline, Congress passed the following resolution: "The conduct of James Jarvis, a midshipman of the *Constellation*, who gloriously preferred certain death to the abandoning of his post, deserves the highest praise; and the loss of so promising an officer is a subject of national regret."

Good leadership produces good followership. The leadership Truxtun displayed through concern for his men in turn produced good followership in those under his command.

WAR WITH TRIPOLI

The terms of a treaty with Tripoli required the United States to pay small tributes to that country. Dissatisfied with the amount of tribute paid and lured by the unprotected American commerce, the Bashaw of Tripoli declared war on the United States in 1801.

In answer to this challenge, Commodore Edward Preble, in his flagship, the *Constitution*, was sent to the Mediterranean in command of a squadron. One of the men under his command was a young lieutenant named Stephen Decatur who, inspired by Preble, helped to establish a different type of naval tradition.

STEPHEN DECATUR

During the United States' war with the pirates in the Mediterranean, a dramatic incident influenced the molding of our Navy traditions. The frigate *Philadelphia* had fallen into the hands of Tripolitans and become an important addition to their harbor defenses. A young lieutenant named Stephen Decatur, who was under the command of Commodore Preble, volunteered to destroy this captive frigate. The *Philadelphia* had been built in Decatur's home city and was originally commanded by his father.

Decatur, with 74 comrades, including Charles Morris, James Lawrence, and Thomas MacDonough, sneaked into the harbor at night in a small ketch. They were guided by Salvadore Catalano, a Sicilian pilot who knew the harbor of Tripoli and could speak Arabic. Within minutes they captured the ship, the foe having been cut down or driven into the sea. Combustibles were passed aboard, and soon the ship was burning fiercely. Several minutes later the boarders, with only one man wounded, were back in their ketch. Under fire from shore batteries, they left the illuminated harbor. Three of today's modern warships honor these makers of naval tradition by carrying the names USS *Morris*, *Lawrence*, and *MacDonough*.

Perhaps no act in the first half of the 19th century thrilled Americans more than the destruction of the *Philadelphia*. That spectacular feat made Decatur the most striking figure of the time and prompted Lord Nelson to call it "the most daring act of the age." Spectacular exploits were commonplace in Decatur's career, but they were not the feats of a reckless warrior. He was a thoughtful strategist and an expert tactician. He was, as well, an adept diplomat and a skilled administrator. Like Paul Jones (who could turn an excellent phrase) and Truxtun (who wrote a book on navigation), Decatur was not one-sided. Versatility, too, is a Navy tradition.

PREBLE AND "HIS BOYS"

Commodore Edward Preble (fig. 2-5) fought as a lieutenant in the American Revolution and later in the war with France. He believed in Truxtun's ideas and expanded them. Having served during the Revolution, he also realized the need for justly administered discipline. Like Truxtun, he was keenly interested in his bluejackets; their care and fair treatment absorbed his attention. Preble also shared responsibility with his officers and encouraged them to offer new ideas. He was generous in giving his subordinates credit for their achievements in the squadron and in urging promotions and honors for those who had earned them. The mutual regard between the commodore and his young officers (all the captains and lieutenants were under 30 years of age) united the fleet in spirit.

Preble taught his subordinates the necessity for absolute obedience, unyielding courage, and 24-hour-a-day efficiency, which have continued to be standards of the U.S. Navy. Preble's exemplary leadership was proven in the War of 1812, when his "boys" scored 17 of the 18 victories won by the American navy in combat.

134.8

Figure 2-5.—"Take care of your officers." Commodore Edward Preble commanded the American squadron that smashed the might of the Barbary pirates in the Mediterranean during 1803-1804. The training he gave his young subordinates (who came to be known as Preble's boys) at that time paid dividends in the War of 1812, when they achieved 17 out of 18 naval victories.

WAR OF 1812

SIGNIFICANT DATES

9 Mar. 1798	George Balfour appointed first surgeon in U.S. Navy.
18 Mar. 1798	Benjamin Stoddert is appointed first Secretary of the Navy.

The Navy was outnumbered 40 to 1 in the second war with Great Britain and by 1814 had suffered severe reverses. Our coast was tightly blockaded; our ships were driven from the high seas; and our nation's capitol had been burned. Nevertheless, the Navy won a series of frigate and sloop-of-war duels, which gained it a world reputation. These victories were the result of naval traditions set by some of our greatest leaders. We had the best frigates in the world—the tradition of Humphreys; we had the best gunnery in the world—the tradition of Truxtun; our morale was high—the tradition of Preble; and our Navy had a great fighting spirit—the tradition of John Paul Jones.

These brilliant frigate victories on the high seas had little effect on the course of the war itself. However, the naval leaders responsible for these victories contributed much to the building of traditions in our Navy.

ISAAC HULL

Before the turn of the century, Hull had already made his mark in history by capturing a French privateer. Although the French ship was larger and more heavily armed than the ship he commanded, Lieutenant Hull and his men captured the ship without the loss of a single man.

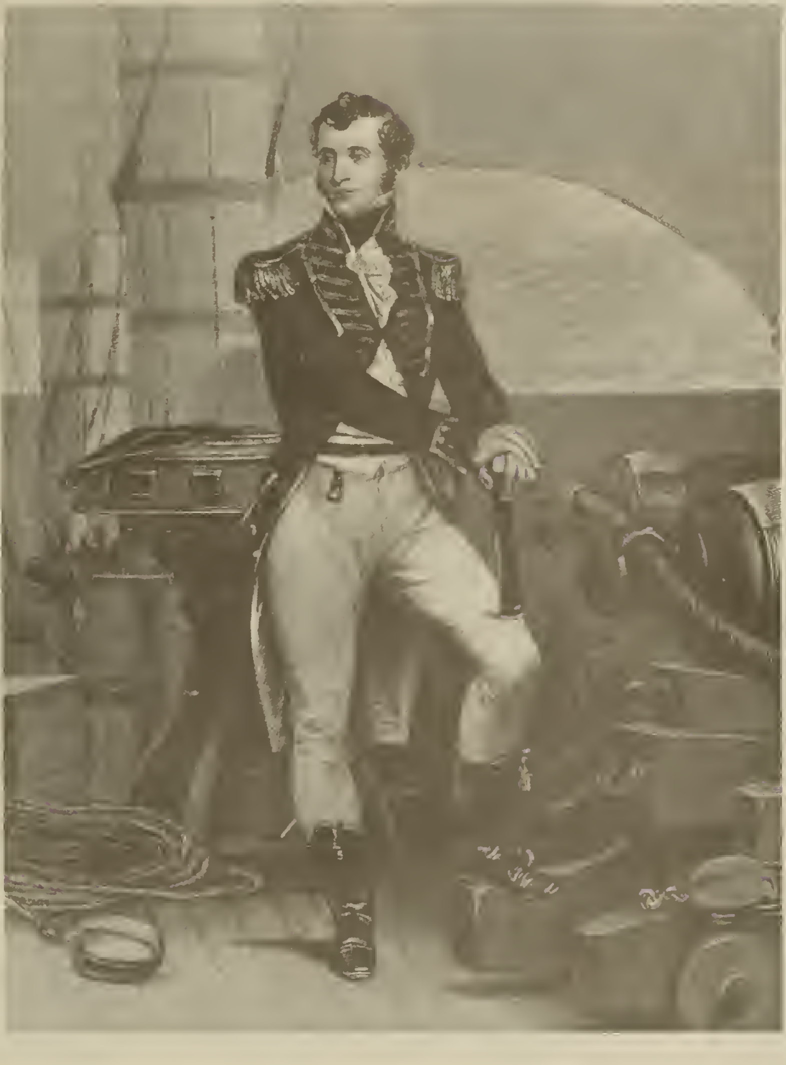
Captain Hull's greatest role in naval history was as the commanding officer of the *Constitution* in the battle against the *Guerriere* commanded by Captain Dacres. During that battle, Hull quietly moved among his officers and men, addressing them with words of confidence and encouragement such as "Men, now do your duty." And every man stood firm to his post.

Within 45 minutes the *Guerriere* had been reduced to a wreck—a feat that astonished both sides of the Atlantic. In that battle our most famous and historic ship, the *Constitution*, won its nickname "Old Ironsides" as enemy shot bounced harmlessly off its thick wooden hull.

STEPHEN DECATUR

As already pointed out, Decatur (fig. 2-6) received his training in Preble's "school" in the Mediterranean. Now in command of the *United States*, he faced the *Macedonia*, one of the finest ships of its class in the Royal Navy. Decatur, choosing his position well, decided to fight at long range and gradually wear down his opponent.

Quickly analyzing the battle situation, Decatur saw that the greater range of his guns would enable him to outshoot and cripple the British. He cleverly maneuvered his ship and prevented the enemy from closing in. His gunners fired rapidly and accurately, and more than a hundred shots penetrated the *Macedonia's* hull. Down came its mizzenmast. Both the fore and main topmasts were shot off. After 2 hours of fighting, the battle was over. The victory was a great exhibition of leadership by Decatur, who had an exceptional ability to instill his own spirit into his men. He describes that spirit as follows: "The enthusiasm of every officer, seaman, and marine on board this ship, on discovering the enemy, their steady conduct in battle, and precision of their fire, could not be surpassed."



134.9

Figure 2-6.—Praise can be a motivating force. Captain Stephen Decatur substituted praise for oaths and flogging—and his gunners poured 100 shots at long range into the enemy Macedonia in the War of 1812.

Decatur was popular with his men. He deplored oaths and flogging—the customary methods of discipline used at that time. He often addressed his men directly, explaining the kind of conduct he expected of them. Decatur won respect not by demanding it, but by deserving it.

OLIVER HAZARD PERRY

Many fighting slogans were coined during the War of 1812. James Lawrence's dying words, "Don't give up the ship," uttered in the ill-fated *Chesapeake*, became the battle cry of the Navy. Oliver Hazard Perry carried them to Lake Erie where a flag containing the words "Don't give up the ship" was hoisted on his ship.

During the Battle of Lake Erie, with four-fifths of the crew dead or wounded and his ship, the *Lawrence*, crippled, Perry faced defeat. He made a perilous passage in an open boat to another ship, the *Niagara*, under the guns of the enemy. Exhibiting extraordinary shrewdness and courage in a surprise maneuver, he sailed the *Niagara* (fig. 2-7) into battle and defeated the enemy within 15 minutes.

DR. USHER PARSONS

A hero and tradition maker seldom mentioned in descriptions of the Battle of Lake Erie was Dr. Usher Parsons. Dr. Parsons was the only surgeon aboard the *Lawrence* during that battle.

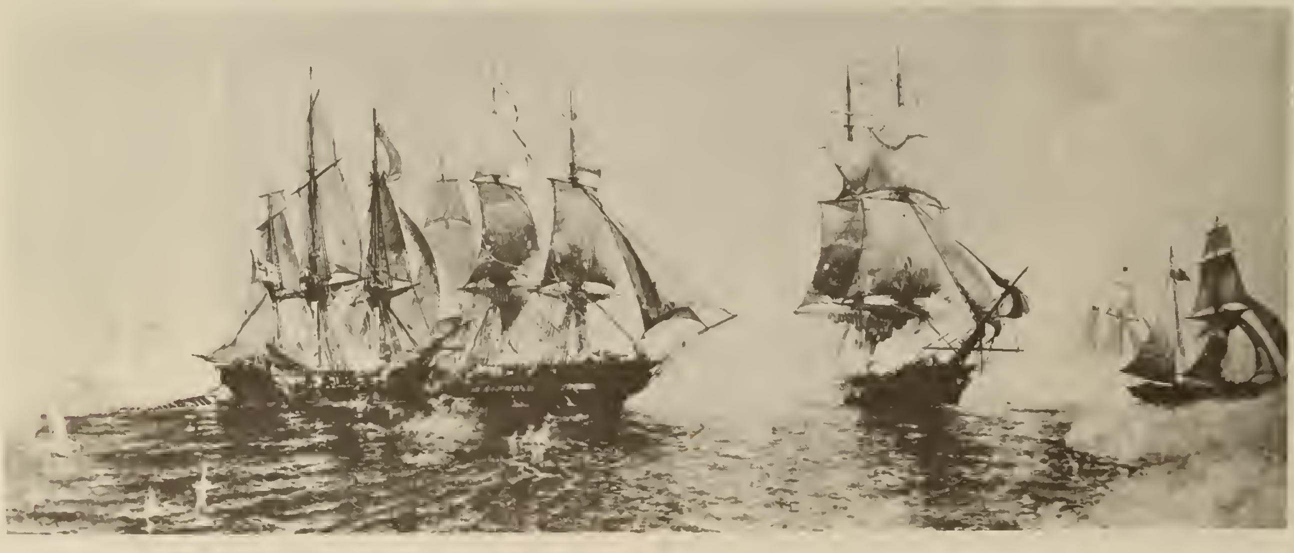
Ships of this era were shallow-built with unprotected cockpits. (A cockpit was the junior officers quarters, usually located below the waterline.) During the Battle of Lake Erie, the doctor tended the wounded on the wardroom floor, which was nearly level with the surface of the water. Unprotected from enemy fire, this hot and crowded spot served as the operating room and hospital in which Parsons and his assistants carried on their work.

When all able men were needed on deck to fight, the doctor carried on single-handed. During the battle, five cannon balls crashed through the wardroom, one of them killing two men lying on the operating table. In all, Dr. Parson amputated six limbs and dressed the wounds of many men before he finally transferred with Perry to the *Niagara*.

Of the 96 men wounded in the battle, only 3 died—a remarkable tribute to the skill of the 25-year-old surgeon. In a letter to the Secretary of the Navy, Perry wrote, "Of Dr. Parsons, surgeon's mate, I cannot say too much." Dr. Parsons was only one of many doctors who made bravery a naval tradition. During the quasi-war with France and the War of 1812, the names of 34 medical officers were included in a resolution by a grateful Congress.

THOMAS MACDONOUGH

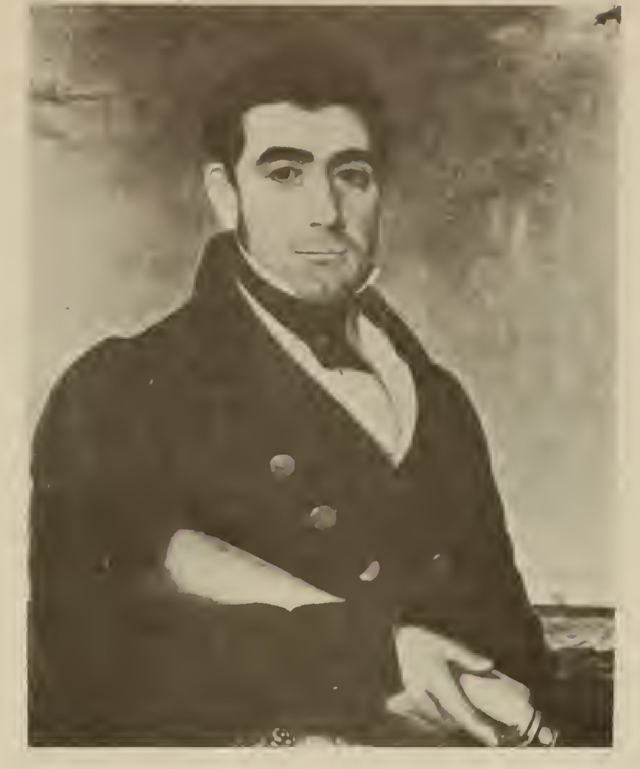
Of perhaps greater importance than Perry's victory was Thomas MacDonough's brilliant triumph over the British fleet on Lake Champlain. As the enemy ships closed in, "young MacDonough, who feared his foes not at all, but his God a great deal, knelt for a moment with his officers on the quarterdeck."



134.10

Figure 2-7.—A surprise maneuver turns defeat into victory. Leaving the crippled Lawrence, Perry boarded the Niagara, sailed through the British lines, and attained victory in 15 minutes.

MacDonough (fig. 2-8) was everywhere during the battle, trying to instill organization and fighting spirit into his crew. His calm determination was remarkably contagious. The credit of this victory against a superior force belongs first and last to MacDonough himself. In choosing a position that imposed upon the British an approach under a raking fire, he won the opening gambit of the battle. Meantime, he was wise enough to hold several tactical tricks in reserve. With these he managed to rally when the enemy thought him beaten.



134.11

Figure 2-8.—The greatest naval victory of the War of 1812, perhaps the most decisive of all battles fought on land or sea in that conflict, was won by Captain Thomas MacDonough, "the hero of Lake Champlain." The action halted a British invasion of New York that stood little chance of defeat at the hands of the American army.

MacDonough's Champlain victory was an example of the American naval effort in the War of 1812. Pitted against the greatest naval power in the world, our tiny Navy fought with great valor. In accomplishing much with little, the Navy began another tradition—one expressed by the Navy's slogan in World War II: "We must all do all that we can with what we have."

THE CIVIL WAR

SIGNIFICANT DATES

26 Jun. 1861	Commander James Harmon Ward killed by musket ball—first Union naval officer to become casualty in Civil War.
16 Jul. 1862	Rank of rear admiral created; David G. Farragut appointed as first to hold rank.
11 May 1865	Confederate navy surrenders to Captain Edward Simpson.
25 Jul. 1866	David G. Farragut appointed first admiral in U.S. Navy.

The naval history of the Civil War vividly portrays the use of sea forces against an enemy who was economically dependent on shipping. The Confederate States were a combined land power with the advantage of interior lines. The Confederates' many sea and river ports allowed them access to world commerce, which they vitally needed; but an effective Union blockade denied them war imports. The Confederates achieved their successes with shoestring resources, which were soon expended.

The Union navy (U.S. Navy) simultaneously assumed three huge strategic tasks, largely amphibious in nature. It attempted to blockade the whole southern coast, force its way into various southern ports, and cooperate with the Union army on the Mississippi front. Union naval forces were also called upon to protect northern shipping from enemy raiders. The Union navy's ability to adjust to new conditions is shown in the way it met the complex demands of the Civil War both afloat and ashore. To complicate matters, naval warfare at that time was in a transitional period; that is, a total naval revolution was in progress. Although steam propulsion was introduced earlier, armor was just coming into use. In the field of ordnance, rifled guns and shell ammunition required new methods of fire control.

Produced by this rapid transition was one of the oddest assortments of warships ever assembled. The Union fleet contained old wooden frigates like the *Constitution*, converted East River ferryboats, scores of armed steamers, and a number of experimental ironclads. The South used armored vessels, steam commerce raiders, electrical mines, and even primitive submarines.

Under the superior leadership of Secretary of the Navy Gideon Welles and Assistant Secretary Gustavus V. Fox, the Union navy used the war as a testing period for strategies and weaponry.

The nation's scientists and inventors contributed many innovations and, by war's end, the Navy was technically the equal of any on the sea.

The most famous naval battle of the war served as a preview of things to come. This was the battle between the USS *Monitor* and CSS *Virginia* (ex-USS *Merrimac*). That naval conflict probably attracted more attention than any in our history. Fighting the first action of its kind in history, the ironclads conclusively demonstrated the superiority of metal over wood. The battle of the ironclads contrasted with the easy victories of the *Virginia* over the unarmored ships *Cumberland* and *Congress* on the previous day.

Leaders in both the Union navy and the Confederate navy contributed to our naval traditions. From these valiant leaders we learned the importance of attention to detail, a progressive outlook, a sense of humor, and persistence in the face of adversity.

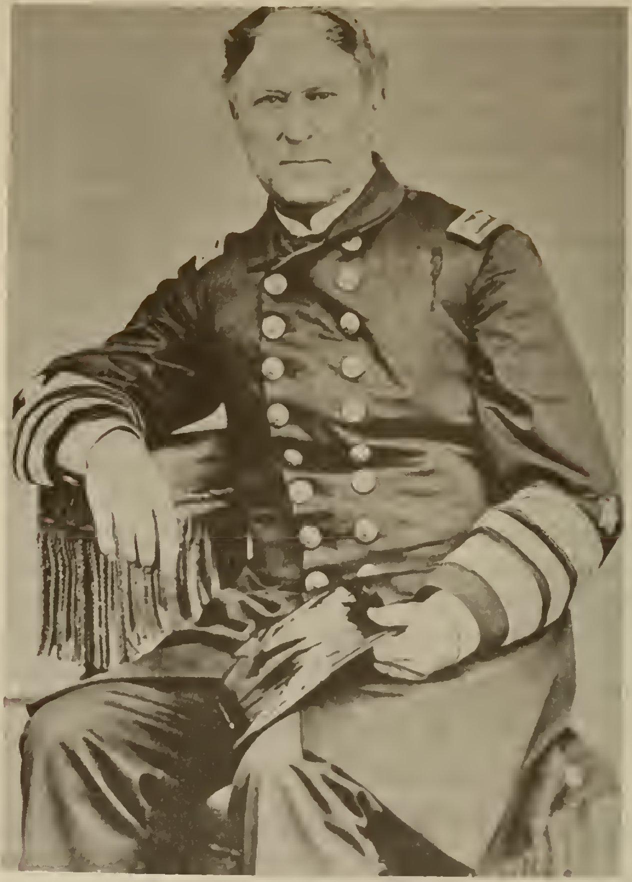
DAVID G. FARRAGUT

Among the outstanding naval leaders of the Civil War was David G. Farragut (1801-1870). Like many others in the early days of the Navy, Farragut (fig. 2-9) entered the service as a youngster. He was a midshipman before he was 10 years old. By the time he was 21, he was experienced at shiphandling and leadership.

When the Civil War broke out in 1861, Farragut, then aged 60, had already served 49 years in the Navy. At this time he was awaiting orders in Norfolk, where he and his wife had made their home for almost 17 years. Southern friends, urging him to espouse the Confederate cause, were left in no doubt as to his sympathies and convictions. "I would see every man of you damned before I would raise my hand against the flag." With that declaration of allegiance, he hurried north to serve with the United States Navy.

Farragut's New Orleans campaign was one of the most brilliant of the war. Where logistics was concerned, Farragut displayed an impressive knowledge of the art of moving men and supplies. He is credited with being the first American officer who fully understood the strategic deployment of a fleet and coordinated the operations of his vessels accordingly.

Farragut is best remembered for the incident that occurred at Mobile Bay while he was stationed on the *Hartford*. During the critical phase of battle, mines (then called torpedoes) were reported ahead. Farragut knew that the monitor *Tecumseh*, with almost all hands, had just gone down in that area. His response, would echo throughout history as a slogan for driving leadership—"Damn the torpedoes! Full speed ahead!" As Farragut suspected, most of the enemy's underwater weapons had deteriorated from long submersion, so the fleet got through.



134.12

Figure 2-9.—The statement of David G. Farragut, tactician and strategist, that "the best defense is a well-directed fire from your own guns" became a Navy axiom.

This engagement shows another example of Farragut's genius for planning. He had spent 2 days making sure his ships were prepared for the run. Heavy anchor cables were fastened alongside the wooden sides to serve as "chain armor" for the engines and boilers. The ships were daubed with mud (primitive camouflage), and water buckets were readied for fire fighting. As a tactician and strategist, Farragut was unexcelled by any of his peers. His statement, "the best protection against the enemy's fire is a well-directed fire from your own guns," became a principle of naval warfare. However, Farragut gave the Navy much more than valiant slogans;

he left us a reminder that major plans are composed of minor details. Even a detail as minute as water buckets received Farragut's attention. Shortly after the battle of Mobile Bay, Congress created the rank of admiral, thereby making Farragut the first U.S. Navy admiral in July of 1866.

DAVID D. PORTER

David D. Porter (fig. 2-10) was the son of the famous David Porter who commanded the *Essex* during the War of 1812. David D. Porter saw more continuous fighting than any American naval officer of note during the Civil War—much of it on the Mississippi River. Competent, aggressive, and resourceful, Porter rose from the rank of lieutenant at the beginning of the conflict to rear admiral at its close. Through Porter's urging, the Navy chose Farragut to lead the New Orleans expedition. Porter devised and led the famous mortar flotilla that did much to crack the Delta defenses.

Juniors were eager to serve under the dynamic Porter. Besides being a fine seaman and able administrator, he possessed many personal traits that contributed to the spectacular success of his naval career. He was impulsive, frank, honest, and endowed with a creative imagination. He detested disloyalty and valued performance above protocol. His sense of humor was unquenchable; no matter how desperate a situation became, he could find an opportunity for a jest. He could accurately estimate the potential of his subordinates and always praised them when they lived up to his expectations. Above all, he favored innovation and was open-minded toward anything that might be better. His progressive outlook kept him a step ahead of his colleagues.

RAPHAEL SEMMES

The distinguished Confederate naval leader Raphael Semmes (fig. 2-11) conveyed an

134.128

Figure 2-10.—Rear Admiral David D. Porter was the second admiral in the U.S. Navy, preceded only by Farragut. Porter commanded the Mississippi River flotilla in its campaign down the big waterway that climaxed at Vicksburg. Later he inflicted a brilliant and crushing defeat on the Confederates at Fort Fisher in 1865.

134.129

Figure 2-11.—Raphael Semmes, while skipper of the Confederate Alabama, ruthlessly burned ship after ship, virtually driving merchantmen flying the Stars and Stripes off the seas.

impression best described by the term *knightly*. Few warriors of that caliber ever existed outside the pages of fiction, but Semmes lived the part in the best John Paul Jones' tradition. Captaining *Sumter* and *Alabama*, he left a record that reads like a saga of valor and daring actions. Like Jones, he refused to be defeated by adversity. Deprived of *Sumter* at Gibraltar, he wrote, "I could sweep the whole Mediterranean in from 15 to 20 days if I had the means of locomotion." Eventually he acquired the means, and his raiding cruiser *Alabama* struck the North harder blows than any other Confederate vessel.

SPANISH-AMERICAN WAR

SIGNIFICANT DATES

15 Jun. 1898	Fort destroyed and possession of outer bay taken at Guantanamo, Cuba, by U.S. ships.
2 Mar. 1899	George F. Dewey appointed first and only Admiral of the Navy.
24 Jul. 1905	Navy brings body of John Paul Jones to United States.
6 Apr. 1909	North Pole reached by Commander Peary; first U.S. flag raised there.
23 Dec. 1910	LT T. G. Ellyson, the Navy's first aviator, ordered to flight training. He was qualified on 12 April 1911.
1 Jul. 1914	Prohibition proclaimed for Navy.

The Spanish-American War in 1898 was caused by a long series of incidents arising partially from unsettled conditions in Caribbean countries possessed by Spain. As evidenced from the first, the war would be primarily naval and would be decided in favor of the nation that established sea control. The naval strength of the two countries was about equal on paper. However, Spain's ships were poorly equipped, its personnel lacked training, and its officers displayed incredibly incompetent leadership.

Perhaps the outstanding exploit of the Spanish-American War was Commodore George Dewey's seizure of Manila Bay. Knowing Dewey's fleet was somewhere in the vicinity of the bay, the Spanish were ready to receive him. However, the unsuspecting Spanish were taken by surprise by the American's audacity to steam past their forts to attack during the night (fig. 2-12).

While laying his plans, Dewey tried to figure out what Farragut would have done when so confronted, for Farragut had been the inspiration of his life. Farragut's influence on this great leader is borne out in Dewey's statement, "Valuable as the training of Annapolis was, it was poor schooling beside that of serving under Farragut in time of war." Dewey's dramatic decision to force Manila Bay was inspired by his admiration for Farragut.

Dewey's unexpected blow was half the victory. "We shall enter Manila Bay tonight," Dewey informed his subordinates, "and you will follow the motions and movements of the flagship, which will lead."

At 0540 the Spanish were within a 2 1/2-mile range. Dewey, standing on the bridge of the *Olympia*, quietly gave the commanding officer of his flagship the order to "fire when you are ready, Gridley." By noon, every enemy ship was sunk, burned, or abandoned. In that one morning, Dewey eliminated the Spanish navy's strength in the Pacific without the loss of one American life. Even though the enemy defense was weak, Dewey's attack was nonetheless a significant victory.

Dewey stressed preparedness. Before leaving the United States, he had obtained all the information available on the Spanish fleet. He secured charts and other data about the Philippines and made a detailed study of international law. Before the battle, he discussed with his officers every detail of tactics and strategy. Every ship captain knew each detail of how and when to act. "It was the ceaseless routine of hard work and preparation in time of peace," wrote Dewey, "that won Manila and Santiago."

134.131

Figure 2-12.—Commodore George Dewey and his squadron sailed past the shore batteries of Manila Bay on 1 May 1898 to smash the Spanish Pacific squadron of Rear Admiral Montojo, opening the way for the American occupation of the Philippines.

WORLD WAR I

SIGNIFICANT DATES

24 Sept. 1918	Lieutenant (JG) David S. Ingalls becomes Navy's first flying ace. (The criterion for becoming an "ace" is to down five enemy planes.)
28 Feb. 1919	Destroyer *Osmond Ingram*, first Navy ship named for an enlisted man, launched.
27 Feb. 1928	Commander T. G. Ellyson, Navy's first aviator, killed in air crash.
28 Nov. 1929	First flight over South Pole by Lieutenant Commander Richard E. Byrd, who became the first to fly over both poles.

Several days after our declaration of war against Germany in April 1917, Rear Admiral William S. Sims arrived in London. Admiral Sims, who had been serving as President of the Naval War College in Newport, was sent to confer with British First Sea Lord, Admiral John Jellicoe. Explaining the status of the submarine war, Jellicoe revealed that available Allied shipping had been depleted by one-fourth and losses were mounting at an appalling rate. April losses alone threatened to reach the unprecedented figure of 900,000 tons. Sims realized at that rate England, with only a month's grain supply on hand, must starve or surrender within a few weeks' time. Germany was winning the war.

Germany was building submarines, called U-boats, at the rate of three a week. Sims realized the submarine menace had to be reduced drastically if the Allies were to survive. He appealed to the Navy Department for immediate dispatch of all available destroyers and other antisubmarine craft, auxiliaries, and merchantmen. Within a month after our entry into the war, the first American naval forces began to arrive in Britain ready for duty.

From a naval point of view, World War I was a conflict of two blockades. The Allies maintained a long-distance blockade of German ports; the Germans, with the submarine, tried to blockade British and French ports by attacking Allied shipping. The unrestricted sinking of neutral American merchant ships was one reason for our entry into the war. The cruiser, the destroyer, and the newly constructed submarine chaser performed support service in that campaign against German submarines.

The Allied victory resulted in part from the Sims-inspired convoy system employed in transporting about 2 million American fighting men to France. Navy convoys also transported the munitions and supplies needed to sustain Pershing's armies and the Allies.

While these victories cost the lives of many of these American fighting men, many unselfish acts of bravery by men such as O. K. Ingram and Charles L. Ausburne saved the lives of others. Those who performed such acts throughout history gave us one of our most valuable naval traditions—heroism.

O. K. INGRAM

In October 1917 the destroyer *Cassin* was patrolling off the Irish coast. Gunner's Mate O. K. Ingram suddenly sighted a German torpedo racing toward the stern of the *Cassin*. He realized if the "fish" struck the vessel where the depth charges were stowed, the ship would be blown up. Instead of saving himself, he deliberately rushed aft to throw the charges overboard. The torpedo found its mark—and the explosion killed Ingram and temporarily disabled the ship. But this bluejacket's sacrifice saved his ship and the lives of the officers and men on board. The destroyer *Ingram*, now decommissioned, bore his name.

CHARLES L. AUSBURNE

Another incident that occurred in World War I contributed to our store of memorable naval traditions. The transport *Antilles*, bound for the United States from Europe in October 1917, was sunk by torpedo attack. Radio Electrician Ausburne was at the wireless station frantically

134.132

Figure 2-13.—By his brilliant leadership and skill as a strategist, Admiral Nimitz moved his forces in the Pacific, from a series of peripheral engagements to strategic encirclement of the enemy, to cut the enemy's lines of supply and isolate its land forces.

sending out distress signals. The ship was sinking rapidly; but Ausburne, disregarding his own safety, stuck to his post to the end, vainly attempting to obtain help. Ausburne's sacrifice, like Ingram's, was in keeping with the highest traditions of naval service. The heroism of such men reminds us that the bluejackets are worthy of the best in leadership.

WORLD WAR II

SIGNIFICANT DATES

16 Oct. 1940	Registration under the Selective Service and Training Act begins; 16 million register.
7 Dec. 1941	Japanese attack Pearl Harbor.
20 Dec. 1941	Admiral E. J. King assumes duties as Commander in Chief, U.S. Fleet.
18 Jun. 1942	First black officer, Bernard W. Robinson, commissioned in Naval Reserve.

Deeds of yesterday furnish the inspiration for today. In warfare the immediate stakes are death and life, and the long-term stakes are the survival of a way of life and of a civilization. During such crises people must work beyond their strength and hit harder and faster than their opponents. They must make split-second—and correct—decisions and risk their own lives to let others live. Their heroism lives on in traditions that become the motivating force of future generations: traditions of courage, hard work, lightning fast and shrewd judgment, and heroic self-sacrifice. The many Navy members that responded to such crises during World War II reenforced these valued naval traditions.

CHESTER WILLIAM NIMITZ

Admiral Chester William Nimitz hoisted his flag as Commander-in-Chief, U.S. Pacific Fleet (CINCPAC), on 31 December 1941 aboard the submarine *Grayling* in a harbor littered with the wreckage of American warships. Admiral Nimitz (fig. 2-13) was faced with one of the most difficult tasks ever presented. The Japanese, on 7 December 1941, successfully rendered one of the most damaging air raids in history. Of eight battleships in Pearl Harbor, *Arizona* was wrecked, *Oklahoma* capsized, and six were damaged—three of which were resting on the bottom. All totaled, 19 American ships were hit. The Japanese practically eliminated the Navy's air-striking power by knocking out 150 of 202 planes. The Navy and Marine Corps suffered 2,117 dead plus 779 wounded.

Despite a tragic shortage of ships, aircraft, and supplies, Admiral Nimitz organized his remaining forces to carry on defensive warfare. He tried to delay the enemy's advance until we could muster sufficient strength to put up any real resistance. As rapidly as ships, personnel, and material became available, however, he shifted to the offensive.

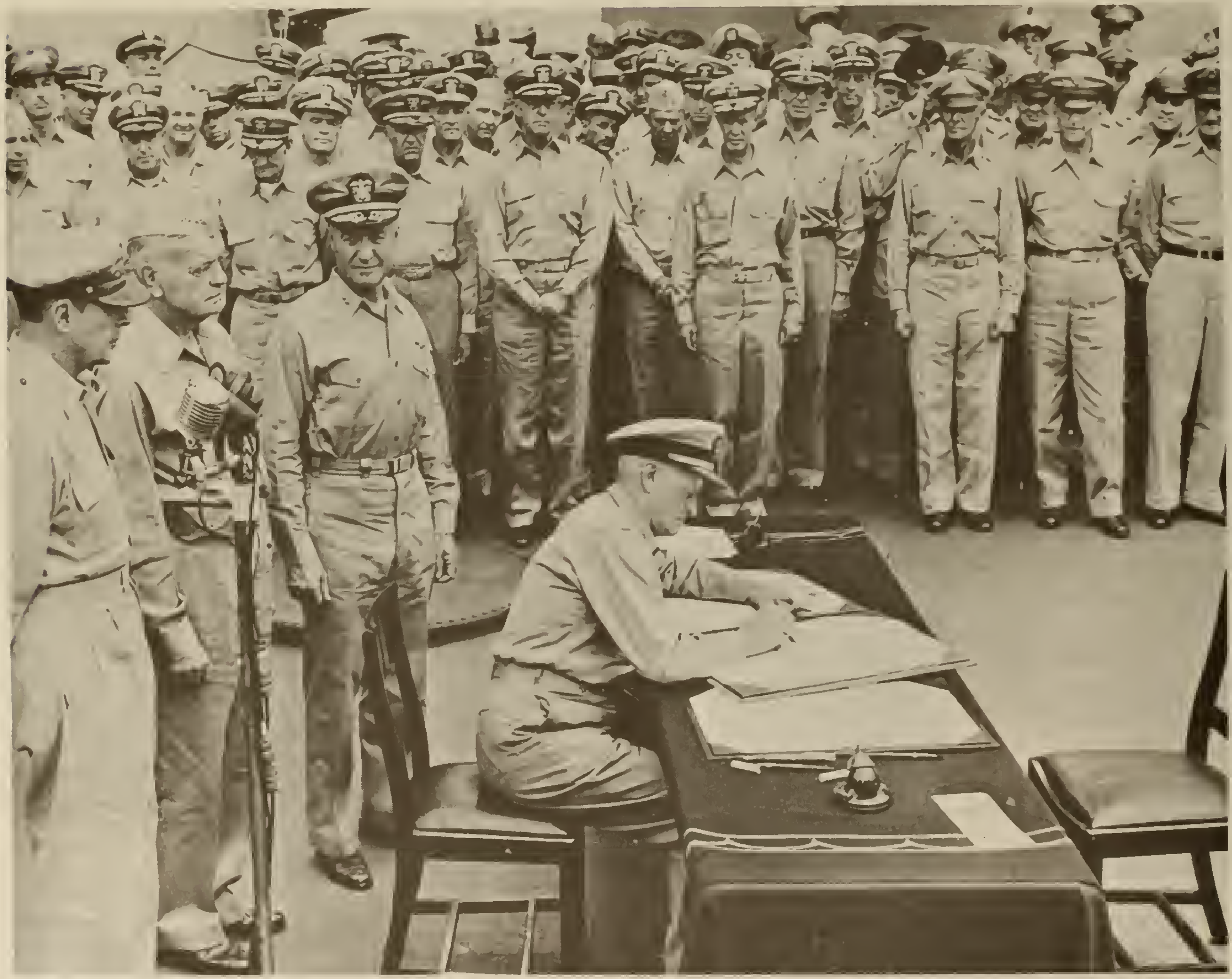
His brilliant leadership and outstanding skill as a strategist enabled units under his command to defeat the enemy in the Coral Sea, off Midway, and in the Solomons. His strategy also enabled forces to conduct offensive raids on Japanese-held territories, such as the Gilbert and Marshall Islands. The first decisive defeat suffered by the Japanese navy in 350 years was achieved by forces under Admiral Nimitz' command during the Battle of Midway. It put an end to the long period of Japanese offensive action and restored the balance of naval power in the Pacific.

Gradually, Admiral Nimitz' forces fought their way across the Pacific to the Japanese mainland. Initiating the final phase in the battle for victory, Admiral Nimitz launched an attack against the Marianas. His forces inflicted a decisive defeat in the Battle of the Philippine Sea and captured Guam and Tinian. Continuing onward, his forces isolated enemy-held bastions (the strategy of island hopping) in the Central and Eastern Carolines. An engagement with Japanese task forces then resulted in a historic victory in the Battle of Leyte Gulf. His long-range strategy peaked as his forces launched amphibious assaults on Iwo Jima and Okinawa.

Finally, Nimitz placed U.S. Navy forces in the harbor of Tokyo, which resulted in the surrender of the Japanese Imperial government. The formal surrender document was signed on 2 September 1945 aboard the battleship *Missouri* in Tokyo Bay (fig. 2-14). General of the Army Douglas MacArthur signed as Supreme Commander for the Allied powers; Fleet Admiral Nimitz signed as representative for the United States.

On 11 December 1944, Congress had authorized the establishment of the grades of Fleet Admiral and General of the Army (the highest grades ever). The establishment of these grades contained the proviso that four Navy and four Army officers could be elevated to those five-star grades. The President immediately recommended Admirals Nimitz; William D. Leahy, Chief of Staff to the President; and Ernest J. King, Commander-in-Chief, U.S. Fleet (CINCUS) for the grade of Fleet Admiral. (An interesting sidelight to this title was that King thought the original abbreviation—CINCUS—was hardly appropriate in view of the successful raid on Pearl Harbor. Consequently, he changed the acronym to COMINCH. During World War II, COMINCH was changed to the title of Chief of Naval Operations [CNO].) Congress approved the recommendations, and Nimitz took his oath of office on 19 December. Admiral Halsey, the fourth Navy recipient of the new grade, received his promotion the following year.

Following the surrender of Japan, Fleet Admiral Nimitz took over the top naval post of Chief of Naval Operations (CNO). He relieved Fleet Admiral King of his post as CNO on 15 December 1945.



134.3

Figure 2-14.—Day aboard the USS Missouri. Fleet Admiral Nimitz signs the Japanese surrender document on 2 September 1945.

Nimitz received some 15 decorations and awards from foreign governments. After his release from active duty, he served for 8 years as Regent for the University of California. He received honorary degrees from 19 universities and colleges, including Notre Dame, Columbia, Northwestern, Syracuse, Tulane, Harvard, and Princeton.

WILLIAM FREDERICK HALSEY, JR

Admiral Nimitz was fortunate to have under his command many extremely resourceful, intelligent, dedicated, and courageous officers. Among these were such commanders as Raymond A. Spruance, Thomas C. Kinkaid, Marc A. Mitscher, John S. McCain, and R. K. Turner. Probably the most famous leader, however, was Admiral William F. (Bill) Halsey (fig. 2-15). (Although reporters tagged him with the nickname "Bull," Halsey disliked it because it seemed flamboyant.) His determination to succeed earned him the designation of naval aviator at the age of 52, a prerequisite to being assigned a captain of an aircraft carrier.

134.133

Figure 2-15.—Admiral Halsey was an exceptional commander. Although he had a flair for doing the spectacular in a dashing way, his valor and audacity were tempered by tactical discretion. Admiral Nimitz, then CINCPAC, once said of him, "He . . . can calculate to a cat's whisker the risk involved."

During the attack on Pearl Harbor, Halsey was about 200 miles at sea. He was returning to Pearl Harbor in his flagship *Enterprise* from Wake Island where he had delivered Marine Fighter Squadron 221. He took no part in the action except to launch aircraft in a fruitless search for the enemy.

Early in 1942 Admiral Nimitz chose Halsey to conduct the first offensive raid in the central Pacific. Halsey's forces of 2 carriers, 5 cruisers, and 10 destroyers made a bold attack beginning 1 February against the Japanese-held Gilbert and Marshall Islands. They bombed and bombarded enemy bases on nine separate islands. During the action, the heavy cruiser *Chester* took one bomb hit, and the flagship *Enterprise* was grazed on the flight deck by a suicide pilot; no other ships were damaged during the entire operation. Among other benefits, the raid reestablished the offensive spirit within the Navy and answered a question being asked at home—"Where is the Navy?"

Four months after the "Day of Infamy" (Pearl Harbor), Halsey's forces conducted a unique and dangerous carrier operation. They transported 16 B-25 Army bombers across an ocean and launched them 650 miles off enemy shores. The squadron of planes, led by Lieutenant Colonel James Doolittle, took off from the *Hornet* to bomb Tokyo. That attack boosted American morale, which at that time was very low.

Halsey's flagship, the *Enterprise*, was the first carrier awarded a Presidential Unit Citation in World War II. The citation was presented for consistently outstanding performance and distinguished achievements during repeated action against Japanese forces. The *Enterprise*, under Halsey's leadership, took part in nearly every major carrier engagement in the first year of the war. Exclusive of the damage and destruction of hostile shore installations throughout the battle area, it sank or damaged 35 enemy ships and shot down 185 aircraft. The *Enterprise* was reported sunk by the Japanese so many times it became known as "the galloping ghost of the Oahu coast."

On 18 October 1942 Halsey was appointed Commander of the South Pacific Force and South Pacific area. Starting with the decisive American victory in November at Guadalcanal, Halsey's forces stopped the Japanese advance in the South

Pacific. (However, sporadic action on or near Guadalcanal continued into the following February.) Halsey conducted brilliantly planned and consistently sustained offensives through December 1943. Halsey's forces secured the South Pacific area by driving the enemy steadily northward while occupying strategic positions throughout the Solomons.

After Halsey led his forces to victory at Guadalcanal, President Roosevelt nominated him for the unheard of fourth star. Having more than four full admirals on active duty in the Navy was unheard of, and we already had them—King, Nimitz, Stark, and Ingersoll. A grateful Congress approved the nomination anyhow.

In June 1944 Halsey assumed command of the Third Fleet. Beginning in August, his forces left a trail of enemy ruin and destruction. Starting at Palau (a small group of islands north of New Guinea) and the south China Sea, they went up through the Philippines, Formosa, and Okinawa. They inflicted greater loss on the Japanese navy than had ever before been suffered by any fleet. In a magnificent sweep into enemy waters between August 1944 and January 1945, the Third Fleet destroyed 4,370 enemy aircraft and sank 82 combatant ships and 327 auxiliaries. That was a sharp contrast to the United States' loss of 449 aircraft and the light cruiser *Princeton*.

After the Okinawa campaign, Halsey headed for Tokyo to conduct preinvasion operations. His fast carrier task force was the greatest mass of sea power ever assembled. It included three task groups, each consisting of five carriers and a battleship-cruiser-destroyer screen. Units of the British Pacific Fleet joined his forces in July, with Halsey in overall command. The ships and planes of Task Force 38 blasted every industry and resource that enabled Japan to make war. They knocked out remnants of the once mighty Japanese fleet, found hiding in camouflage nets throughout the length of the Honshu Island. When the "cease-fire" order was flashed on 15 August 1945, Halsey's forces had destroyed or damaged nearly 3,000 aircraft and sunk or disabled 1,650 combatant and merchant ships.

Halsey's actions were characteristically audacious and brilliantly planned, exemplifying his slogan to "Hit hard, hit fast, hit often!"

In recognition of his exceptional war record, Admiral Halsey was nominated for the grade of Fleet Admiral in November 1945. After the Senate confirmed his nomination, he took the oath as Fleet Admiral on 11 December 1945. He became the fourth, and last, officer to hold that grade.

After his return to the United States in October 1945, Halsey served as a goodwill ambassador on a 6-week trip through Central and South America. He was given numerous awards in the form of parades, reviews, gifts, and military decorations.

At his own request, Halsey retired from the Navy on 1 March 1947.

SEAMAN JOHNNIE HUTCHINS

In 1943 Seaman Johnnie Hutchins took his place among the tradition makers of the United States Navy. At that time the LST 473, carrying men, tanks, and supplies, was part of a landing force heading for a Japanese position on New Guinea. The ship met stiff opposition as it advanced, with shells dropping in the water close aboard. Suddenly a Japanese torpedo plane dived low out of the sky and launched its torpedo directly at the LST. In the pilothouse the steersman saw the torpedo coming, as did Seaman Hutchins who stood at his battle station nearby. Before the steersman could swing the ship out of the torpedo's path, he was killed by a bomb that hit the pilot house. Although Hutchins was fatally wounded, he summoned enough strength to stagger to the wheel and turn the ship clear of the torpedo. The ship was saved, but Hutchins died a short time later. In the face of death, this man's last thought was not of himself, but of others.

GUNNER'S MATE THIRD CLASS PAUL HENRY CARR

On 25 October 1944 USS *Samuel B. Roberts* (DE-413) was surrounded on three sides by Japanese battleships, cruisers, and destroyers. The men aboard the *Roberts* were unaware the battle off Samar had begun. The thin-skinned destroyer escort, with its 5-inch guns, was no match for the 18-inch guns of these Japanese heavyweights. Even so, on it sailed, closing to within 4,000 yards of a heavy cruiser and unleashing a spread of torpedoes.

Serving as a gun captain on *Robert's* aft 5″/38-caliber gun mount was a farm boy from eastern Oklahoma. Carr, who was only 20 years old, had never seen the ocean before he joined the Navy in 1943. Now he was in the middle of one of the most important naval battles of World War II.

The only son in a family of nine children, Carr grew up on a farm in Checotah, Oklahoma. Paul learned responsibility at an early age. He always had chores to do, from feeding the livestock and cleaning the hen house to milking the cows and hauling water from the well. Carr's work never seemed to end. His chores controlled where he went and how long he stayed. Perhaps this informal education in self-discipline and responsibility was what later made Carr a leader among his shipmates.

Paul Carr and his crew fired over 300 rounds during the battle off Samar. They scored at close range and severely damaged a Japanese heavy cruiser, knocking out an 8-inch turret, demolishing its bridge, and starting fires aft.

His crew had inspired every man on the ship, a ship that was now in grave danger of sinking. The massive blows by the Japanese had taken their toll. The *Roberts* was without power, compressed air, hydraulics, and communications. The crippled ship was barely afloat and taking on water through a gaping hole left by a 14-inch shell fired from the Japanese battleship *Kongo*.

Even though the safety device of the gas-ejection system was inoperative, Carr's close-knit gun crew loaded, rammed, and fired six charges by hand. When the crew attempted to fire a seventh round, the powder charge "cooked off" before the breech was closed. The charge wrecked the gun and killed or wounded all but three men in the gun house.

After the order to abandon ship had been given, a petty officer entered the gun mount to find Carr literally torn open from neck to thigh. Carr, ignoring his injuries, was holding a 54-pound projectile, trying, unassisted, to load and ram the only shell available. Carr begged the petty officer to help him get off the last round. But the man, seeing the gun had been destroyed and its breech rendered a mass of twisted steel, took the projectile from Carr's hands.

After helping one of the other wounded men to the main deck, the petty officer returned to the gun mount. There he found Carr, although horribly wounded, again attempting to place the projectile on the loading tray of the inoperable gun. A few minutes later this brave man died. About an hour later USS *Samuel B. Roberts* sank.

Paul Henry Carr's memory will continue to live. On 27 July 1985 the Navy commissioned the USS *Carr* (FFG-52), honoring a man who gave his life for his shipmates and his country.

COMMANDER HOWARD W. GILMORE

The unrelaxed vigilance, skill, and daring of the submarine service furnished many tradition makers in World War II. The story of Commander Howard W. Gilmore is classic.

Commander Gilmore was in command of the submarine *Growler* in the South Pacific. He had just sunk one Japanese freighter and damaged another when he found himself fighting a surface engagement with a Japanese gunboat.

Gunfire had severely wounded Gilmore and had seriously damaged his submarine. To save his ship, he calmly gave the order to clear the bridge, knowing his own life would be sacrificed. Time did not permit even the few seconds' delay needed for him to go below. He did not hesitate as he voiced the order, "Take her down." The well-trained crew, inspired by Gilmore's fighting spirit, brought the damaged submarine to port.

THE MARINES ON IWO JIMA

Iwo Jima goes down in history as one of the most costly and frightful battles ever waged. The Japanese prepared for the battle by hiding in caves and camouflaged blockhouses on the beach armed with plenty of ammunition. Besides ammunition, the Japanese had plenty of courage because their attack strategy provided them with protection while the American soldiers would be open targets.

Meanwhile, 800 invasion ships carrying U.S. Marines anchored offshore and began to deliver troops to the beach. The Japanese, sheltered in their concrete pillboxes and underground caves, slaughtered battalion after battalion of men as they landed on the beach and dug forward. The grueling battle continued for days before the Americans finally defeated the enemy to make the first capture of Japanese territory during the war.

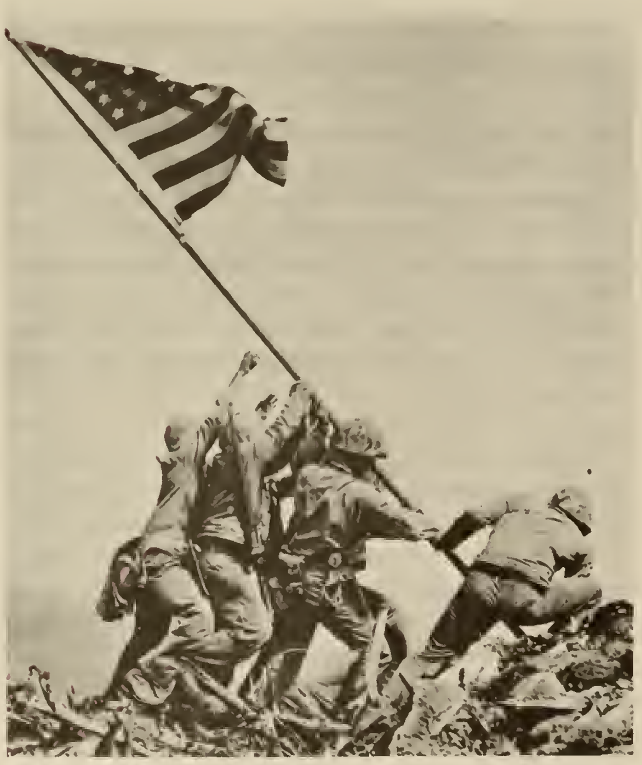
As a symbol of victory, a group of six men—five marines and a Pharmacist's Mate (Hospital Corpsman)—then raised an American flag atop

Mount Suribachi (fig. 2-16). The date was 23 February 1945. These six men were Sergeant Michael Strank of Pennsylvania; Corporal Harlan H. Block of Texas; Privates First Class Franklin R. Sousley of Kentucky, Rene A. Gagnon of New Hampshire, and Ira H. Hayes of Arizona; and Pharmacist's Mate Second Class John H. Bradley of Wisconsin. Admiral Chester W. Nimitz singled out these men as representatives of the "uncommon valor" shown by the Marines on Iwo Jima at a cost of 5,017 dead and 17,145 wounded.

The sacrifices made by these men live on in the minds and hearts of Americans. A monument and flagstaff were dedicated to those heroes on top of Mount Suribachi. The United States Marine Corps War Memorial (a bronze statue with 32-foot figures), immortalizing the deed, stands just outside Arlington National Cemetery in Arlington, Virginia.

THE KOREAN CONFLICT

The Korean conflict had its acts of heroism also. We have innumerable accounts of men of the Navy and Marine Corps who gave their lives in that conflict.



134.18

Figure 2-16.—Raising the colors under fire after the charge up Mount Suribachi.

Representative of these men was Private First Class Walter C. Monegan, Jr. When his battalion encountered six T-34 medium tanks, he destroyed one and halted the advance of the other five tanks with his rocket launcher. A few days later, North Korean tanks again menaced his battalion. Monegan snatched up his rocket launcher and started toward the enemy. He spotted three T-34s. He sent a round slamming into the nearest tank, piercing its armored hull and spraying the crew with fragments of steel. Turning quickly, he fired on the second, causing it to erupt into flames. Caught in the light of this roaring fire, he raised his weapon and advanced upon the third vehicle. Just as he was about to pull the trigger, he was killed by fire from an enemy machine gun.

THE VIETNAM CONFLICT

Most heroes are very much like the boy next door—nice guys, but not particularly unusual until, in a time of crisis, they do something extraordinary.

This section describes the actions of five men who distinguished themselves in combat in Vietnam by risking their lives above and beyond the call of duty. All five were awarded the nation's highest award—the Medal of Honor; however, only one, James E. Williams, lived to receive the award personally.

MARVIN G. SHIELDS

Marvin G. Shields, a Construction Mechanic Third Class, was a Seabee attached to Mobile Construction Battalion 11 at Dong Xoai. Near midnight on 9 June 1965, the Vietcong (VC) lobbed a mortar shell (or perhaps it was a rocket) over the compound. Everyone immediately grabbed weapons and manned the defenses.

Although the attack was a heavy one and Shields was wounded early in the action, these obstacles didn't seem to slow down his fighting ability. When ammunition ran low, it was Shields who made several resupply trips to the ammo trailer, crossing 150 feet of ground exposed to mortar fire. When the VC came pouring in, the defenders fell back to new positions. Shields and another man took the time to move an officer with broken legs through a hail of bullets to the relatively safe headquarters building.

The attack continued through the night. Shields, although now wounded three times, stayed in the action, repeatedly exposing himself to the enemy while tossing grenades. During the morning hours a lieutenant asked for one volunteer to help him knock out a machine gun that was spraying the building with lethal effect. Shields, the boy next door, immediately offered his services. Although the two men accomplished what they set out to do, both men were hit and Shields was killed.

JAMES E. WILLIAMS

Boatswain's Mate First Class James E. Williams spent much of his tour of duty in Vietnam as part of the river patrol force. He directed the operations of a group of four river patrol boats (PBRs) along the Mekong River.

On 31 October 1966 two Vietcong sampans suddenly fired on Williams' patrol. The patrol's return fire killed the entire crew of one sampan. Pursuing the other, the patrol maneuvered the PBRs through heavy small arms fire from VC forces hidden along the riverbank. Williams' patrol was then confronted in a nearby inlet by two junks and eight more sampans. The patrols immediately came under savage attack supported by fire from heavy automatic weapons ashore.

To make matters worse, when Williams deployed his group to await reinforcements in the form of armed helicopters, he and his men ran into a much larger force of enemy craft. Since the PBRs obviously were not going to be permitted the luxury of waiting around for help, Williams led his group in a counterattack. During the ensuing action, he exposed himself to enemy fire with complete disregard for his own safety. Leading his patrol through intense fire, Williams and his men damaged or destroyed 50 sampans and 7 junks before the helicopter arrived. Williams then directed an attack against the remaining craft and the enemy ashore.

Demonstrating unyielding courage through the 3-hour battle, Williams was responsible for the loss or destruction of no less than 65 enemy boats and numerous VC casualties.

During Williams' 8-month tour of duty, the 57 men serving on the four boats he directed earned a total of 131 combat decorations plus 80 Purple Heart awards.

FRANK S. REASONER

On 12 July 1965 company commander First Lieutenant Frank S. Reasoner, U.S. Marine Corps, led a reconnaissance patrol deep into heavily controlled enemy territory. Suddenly the patrol came under fire from 50 to 100 VC insurgents in concealed positions. Reasoner, at the time, was with the advance party and point. The slashing fury of the VC machine-gun and automatic-weapons fire made moving up impossible for the main body of the party. To provide covering fire, Reasoner repeatedly exposed himself to the devastating attack. Shouting encouragement to his men, he organized a base of fire for an assault on enemy positions. He killed two VC and silenced an automatic weapons position in an attempt to evacuate a wounded man.

When his radio operator was hit, Lieutenant Reasoner himself tended his wounds. The radio operator then tried to reach a covered position but was hit again. In the face of almost certain death, Reasoner left cover to help him a second time and was cut down by machine-gun fire.

The first Navy ship to be named after a Marine Corps Medal of Honor recipient in Vietnam, USS *Frank S. Reasoner* (FF-1063), was commissioned in 1971.

DOUGLAS E. DICKEY

PFC Douglas E. Dickey of the U.S. Marine Corps was a member of a platoon taking part in Operation Beacon Hill. On 26 March 1967 his platoon engaged in fierce battle with the Vietcong at close range in dense jungle foliage. Dickey had come forward to replace a wounded radio operator. Without warning, an enemy grenade fell in the middle of the group of men, which included the immobilized radio operator, the corpsman treating him, Dickey, and several other marines. Fully realizing he would be killed, Dickey threw himself on the grenade and absorbed the complete force of the explosion. PFC Dickey's personal heroism, extraordinary valor, and selfless courage saved his comrades from certain injury and possible death.

Another boy from next door had done something extraordinary.

CHAPLAIN VINCENT R. CAPODANNO

At midafternoon on 4 September 1967, Company M, 3rd Battalion, 5th Marines, made contact with forces of the North Vietnamese Army in Quang Tin Province, Republic of Vietnam. The 5th Marines' Regimental Chaplain, Vincent R. Capodanno, LT, CHC, USNR, who was accompanying this element of his regiment, was positioned with the command group. When word was received that one of the platoons had made contact and was in danger of being overrun, Chaplain Capodanno ran directly to the beleaguered marines. He proceeded to assist the corpsmen, provide comfort and reassurance to the wounded, and administer last rites to the dying. In the midst of heavy mortar and automatic-weapons fire, he ministered to his men calmly and without faltering. Although wounded, he refused treatment for himself. When conditions required the use of gas masks, he gave his own to a marine. At a point of particulary heavy attack, he placed himself directly in the line of fire to save a wounded Navy corpsman. By that act he gallantly gave his life in the service of his fellow man, his God, and his country. For his selfless courage, Chaplain Capodanno was posthumously awarded the Medal of Honor. USS *Capodanno* (FF-1093) was named in his honor.

THE PERSIAN GULF

As with other wars, conflicts, or areas of military aggression where U.S. naval forces were present, the Persian Gulf has had its share of heroes and tradition makers. The presence of naval units showing the flag in any hostile environment is a dangerous situation. This danger can become real, as was the case with two U.S. Navy ships in the late 1980s. The following accounts explain the roles of several heroes from these ships.

USS STARK

The job of USS *Stark* (FFG-31) in the Persian Gulf was to remain in international waters of the gulf. Its mission was to monitor the movements of ships and aircraft of other nations and to show the American flag.

About 2100, 17 May 1987, a U.S. Air Force plane reported two Mirage jet fighters had taken off from an Iraqi air base. The *Stark* was still hundreds of miles away conducting engineering drills. One of the jets climbed to an altitude of 5,000 feet and turned toward the *Stark* at a range of about 200 miles. Both Iranian and Iraqi aircraft maneuvered in that manner on a regular basis, so no real sense of danger was felt. At 2208 the *Stark* issued a warning to the approaching Mirage to stand off. The jet did not respond to the warning, so a second warning was issued. The Iraqi pilot did not respond to that warning either. Approximately 3 minutes later, a lookout reported an inbound missile. The report, however, came too late. General Quarters was sounded. The first of two Exocet missiles punched through the port side of the ship above the waterline in an enlisted berthing compartment. It failed to detonate but spread hundreds of pounds of burning solid rocket fuel, creating an immediate inferno. Less than 15 seconds later, the second missile hit the ship slightly forward of the first and detonated about 5 feet inside the hull. The fire that ensued was so hot (in excess of 1800 degrees fahrenheit) that the main deck and starboard side of the ship glowed cherry red. Figure 2-17 shows the extent of damage to the *Stark*.

The extraordinary and heroic damage control that followed probably kept the *Stark* from sinking. The crew performed in an outstanding manner to control the initial fires and flooding. Afterwards, personnel from five commands joined in the 16-hour battle to save the ship. Axes were used to cut holes in the bulkhead to drain the fire-fighting water, which was 2 to 3 feet deep and boiling hot. Fire fighters who knelt down, as trained, found themselves with boots full of scalding water. The deck was so hot their feet were burned through the soles of their boots. In addition, temporary communications lines melted, and some decks collapsed from the heat. Reflash fires continued for 3 more days.

Once conditions stabilized 37 sailors had perished. Those men who fought the fires are credited with keeping the ship afloat. President Ronald Reagan, during a memorial service, praised the men who died during the attack on the *Stark* as "ordinary men who did extraordinary things. Yes, they were heroes."

USS SAMUEL B. ROBERTS

The USS *Samuel B. Roberts* that steamed in the Persian Gulf was the third ship named in honor of Coxswain Samuel Booker Roberts, Jr., U.S. Naval Reserve. He was posthumously awarded the Navy Cross for extraordinary heroism during World War II. Roberts was a landing craft boat coxswain, who despite intense enemy fire, rescued stranded marines from Guadalcanal.

Since the USS *Samuel B. Roberts* (FFG-58) had been steaming the Persian Gulf for nearly 3 months, 14 April 1988 seemed pretty routine. The ship's crew felt the *Roberts* was the best. *Roberts* had won the Battle Efficiency award and earned the highest grades any ship had ever attained in damage control training at Guantanamo Bay, Cuba, before deployment. The ship's preparedness would soon pay off.

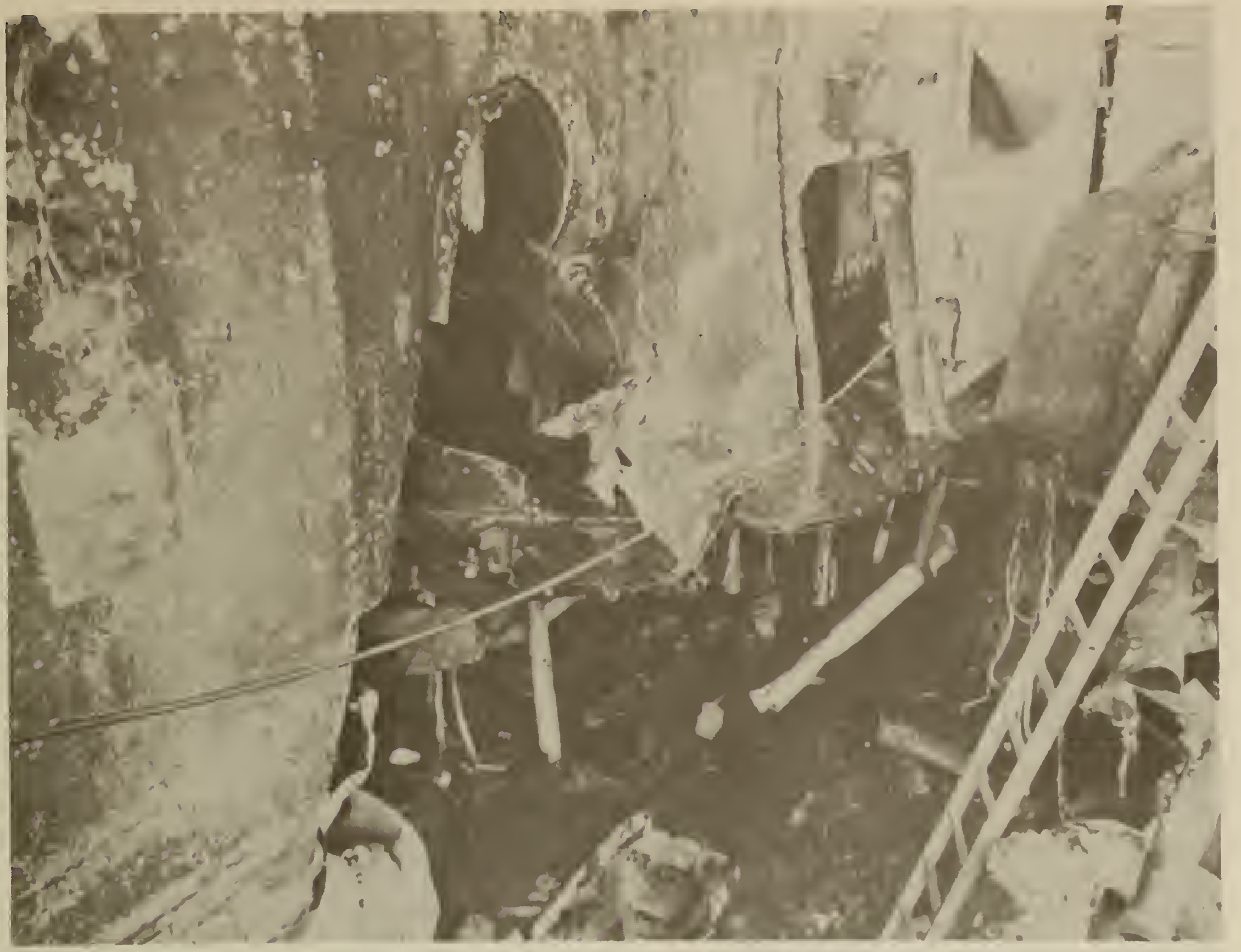


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Figure 2-17.—Damage to the USS Stark.

Enjoying a break from tanker escort duty, the *Roberts* was headed to the southern part of the Persian Gulf for a scheduled replenishment. At 1639 Boatswain's Mate Seaman Bobby F. Gibson, standing the bow watch, saw what he thought were three dolphins off the starboard bow. Dolphins had been spotted earlier in the day and were commonplace in the gulf. Only this time the "dolphins" weren't going back under water. He grabbed his binoculars, spotted the spikes on the floating objects, and immediately notified the bridge. The officer of the deck (OOD), Lt. Robert L. Firehammer, Jr., then called the commanding officer (CO), Commander Paul X. Rinn, who was on the bridge in a matter of seconds. Rinn ordered the ship to "all stop."

Normally, mines found in the gulf were old and encrusted with sea growth. Looking through the "big eyes," a powerful set of binoculars, Quartermaster Second Class (Enlisted Surface Warfare Specialist [SW]) Dan J. Nicholson's heart sank at his first glimpse of the floating objects. They were shiny and the sun glared off them. QM2 Nicholson thought, Whoa, this is real—big time!

Over the ship's general announcing circuit, the 1MC, the captain told his crew their ship had entered a minefield. He called all hands to general quarters (GQ) and told them to check that condition Zebra was set throughout the ship. Within 3 minutes the GQ stations were manned and Zebra was set.

Back on the fantail, the chocks and chains were removed from the ship's helicopter. Boatswain's Mate Second Class Kim T. Sandle prepared to launch the helo to drop floats, flares, and smoke near the spotted mines.

Rinn went to the starboard bridge wing, looking back at the ship's wake. He knew if he kept the ship in the wake, it would be safe. He ordered the lowering of the auxiliary propulsion units (APUs), built in the forward part of the ship to maneuver in tight quarters at low speed. Rinn then began to back the ship away from the mines. For a time the CO's attempt to tiptoe backward out of the minefield looked like it would work. But 21 minutes after the first sighting, the ship bumped into a submerged mine. It struck *Robert's* port side aft, near the keel. At 1700 the ship with the motto "No higher honor" was rocked by the exploding force of hundreds of pounds of explosives.

Engineman First Class (SW) Mark T. Dejno had set Zebra at his GQ station in auxiliary machinery room 3 (AMR3). The engineering officer of the watch, Chief Petty Officer Alex Perez, had ordered all watch standers on the lower levels of the engineering spaces to move to the upper level before the mine hit. Dejno was standing on the upper level of AMR3 when he heard the "BOOM!" and saw a wall of flame and water exploding toward him. Although he was severely burned on his face and one arm, Dejno did not lose consciousness. His first thought was to get out of AMR3—he had to make a report. He climbed through an escape trunk. By the time he got through the hatch, water was up to the deck plates.

Hospital Corpsman First Class James E. ("Doc") Lambert wasn't particularly worried about being in a minefield before *Roberts* struck the mine. He never thought the ship would actually hit a mine. As he said later, "You see an ice patch—you know it's dangerous but you never think you're the one who is going to fall on the ice. It happens to the other guy."

On the bow BMSN Gibson had turned around and saw everyone on the 02 and 03 levels looking at the mines. He was turning forward when the mine exploded. Suddenly he was airborne; looking down, all he could see was forecastle and water as he came flipping out of his dive. He landed heavily on his neck and shoulders. Head spinning, Gibson stumbled aft to help break out a fire hose. He was only starting to feel the pain in his back.

On the bridge wings, the reaction to the explosion was disbelief. Some thought at first the helicopter had crashed, but a quick look at the bridge monitor showed the spinning rotor blades of the helo on the fantail.

The mine *Roberts* had hit contained 250 pounds of TNT equivalent. It struck at frame 276 on the port side, 4 feet from the keel. The explosion blew a 15- by 20-foot hole, in the hull, knocking the ship's two main gas turbine engines off their mounts (fig. 2-18). The port engine had been operating at the time. The fuel released by the explosion ignited and shot up through one of the main exhaust stacks, hurling a fireball into the air 150 feet above the ship. Fiery debris rained down on the deck.

In the main engine room, seawater rushed in through the gaping hole. Within 15 seconds water was just 2 feet below the upper deck plates. The blast rendered the main shaft inoperative and ruptured the shaft seal, which allowed the water from the engine room to completely flood AMR3 in 5 minutes.

Below decks, lights flickered and then went out. The emergency diesel generators supplying the electrical power stopped. Repair party members searching through the darkness quickly isolated and repaired a ruptured air line, allowing the diesels to be restarted.

The situation in AMR2 was critical. Everyone in the space knew if the battered connecting bulkhead to the main engine room gave way, the whole crew would be killed. Chief petty officer Kevin J. Ford and the others now working in AMR2 had been through damage control "wet" trainers to learn plugging and shoring techniques. However, this damage was worse than anything they had ever fixed in a drill, and they would have no opportunity to try again. Failure would mean the loss of lives and the ship—*their* lives, *their* ship. The thought of failure caused them to work harder.

After escaping AMR3, EN1 Dejno put a quick dressing on his arm. Then he found a friend—Petty Officer Second Class Larry Welch—who was badly injured. He took him into the supply office to treat his wounds. Dejno was burned; but Welch was much worse, with charred, dead skin hanging from his arms, hands, and fingers. Dejno tried to trim away Welch's uniform with a knife, but it wouldn't cut through the fuel-soaked clothes. Getting a pair of scissors out of a first aid kit, he cut away the clothes and dangling burned skin. He carefully wiped the fuel oil from Welch's face, wrapped him in a sheet, and headed with him to the 02 level triage area.

Doc Lambert and his assistants grabbed their portable medical bags and headed for the mess decks when the blast occurred. The water on the deck caused Lambert to slip and fall. He became that "other guy" who always slips on the ice patch. The ship had too many wounded sailors and not enough room on the mess decks, so a triage area was set up on the 02 level.

Leaving the executive officer (XO), Lieutenant Commander John Eckelberry, to direct operations on the bridge, the CO left to tour the ship. He

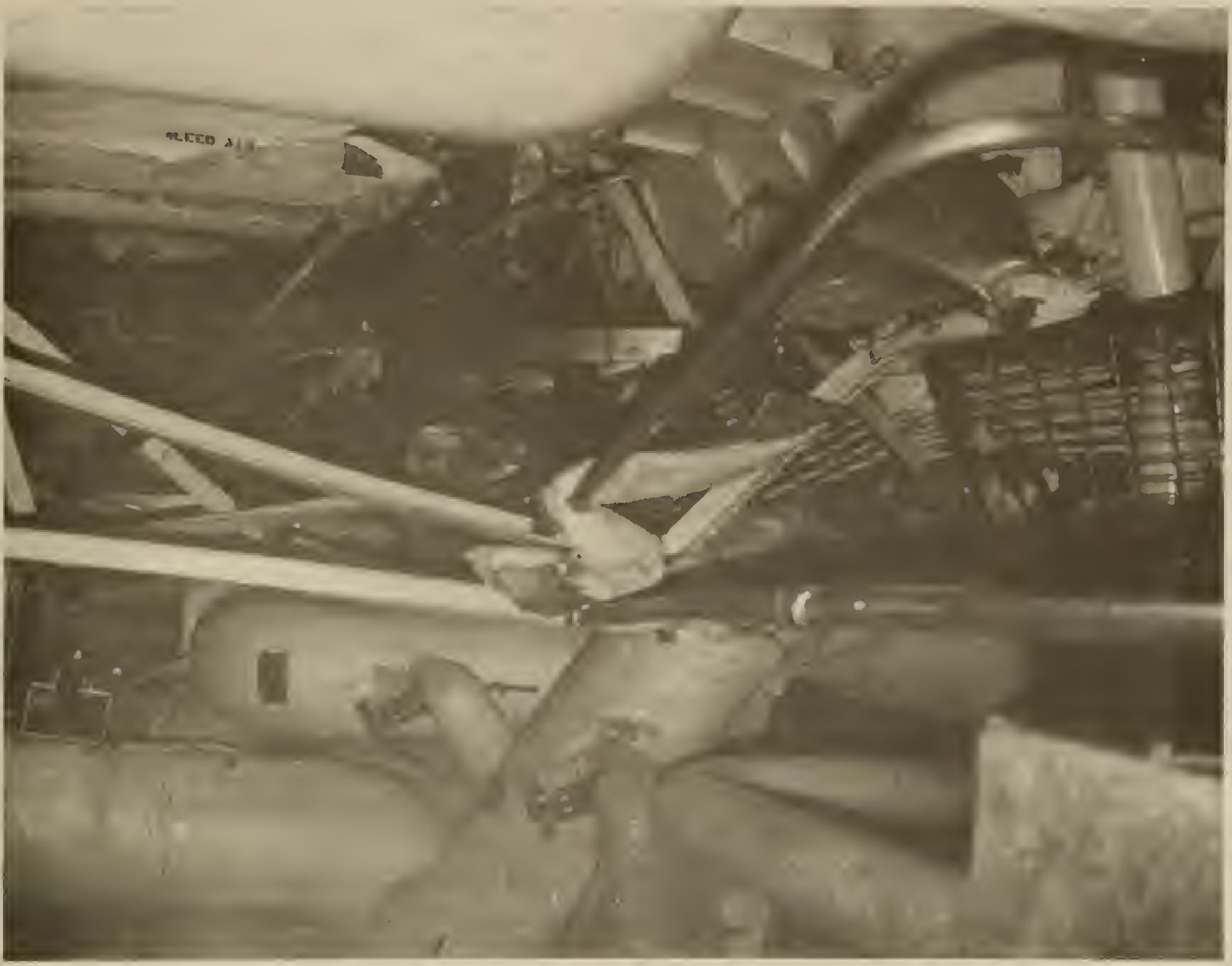

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Figure 2-18.—Damage to the main engine room of the USS Samuel B. Roberts.

entered the main engine room and stepped into ankle-deep water. The CO checked that space and then headed for AMR2, where the key problem was the rising water. Seawater was close to reaching the fire pumps and was already splashing on the diesels. Despite the desperate situation in the engineering spaces, the CO felt a tremendous sense of confidence as he watched his men work. Chief Ford's team was confident too. "We can win this one, captain," one sailor said. "We can do it," another echoed. As he surveyed the situation, he made the decision that they were going to save the ship. At the hatchway the captain looked back and said, "I'll see you again. I'll be back."

The captain recalled the lessons learned about putting water inside the skin of the ship from the *Stark* incident. As the fire fighters put water down the stack, it flowed into the ship. He realized, We're sinking ourselves!

From the triage area on the 02 level, Doc had moved all his patients aft to the hangar bay for evacuation. When BMSN Gibson left the bow immediately after the explosion, he didn't get the chance to break out much fire hose. The pain from his back injury had quickly stopped him in his tracks—now he was pinned to a stretcher.

The worst case so far was the EOOW, Chief Perez. He had serious injuries to his head and back. Having been trapped under the deck grating in the main engine room after the mine exploded, Perez had a close brush with death. Shipmates worked feverishly to rescue him. He escaped by swimming under oily water for 15 feet through mangled equipment to where a crewman was shining a battle lantern into the water to show him the way.

Back on the bridge Rinn ordered the damage control party to stop putting water on the fire. The XO asked the CO if he was crazy. Commander Rinn explained, "No, we don't have to worry about the fire. In a little while we're going to be underwater and the fire won't matter anymore. We've got to quit putting water into the skin of the ship. We've got to hold back on that until we can get control of the flooding."

Meanwhile, the bulkheads of the ammunition magazine were getting hot—up to 134 degrees. The CO immediately gave the crew permission to remove the ammunition from the magazine. At first, they threw the 76-mm ammunition over the side. Then they began to move the shells to the forecastle. Each round weighed about 25 pounds. They moved 700 rounds in 90 minutes.

From the first moments of the crisis, the captain realized the way he presented himself to his men would never be more important. The crew watched every move he made. It was time to earn his pay—time to do his job as he'd been training to do it for years. It was time to lead this brave group of men in one of the most dangerous situations any of them would ever face.

In communications to Rear Admiral Anthony Less, Commander, Joint Task Force Middle East, Rinn said, "We are determined to save the ship, period. That is our intention. We can save our ship. I intend to stay here and do just that." Rear Admiral Less informed Commander Rinn that other units were standing by to assist. However, Rinn explained, "We never saw the mine that hit us. Recommend you don't send other ships. We'll get out on our own."

The captain then spoke to the crew over the 1MC. He explained the ship's status, and then said again, "I think we can save the ship—there is no doubt in my mind."

Captain Rinn had very few good alternatives to saving the ship. Going into the water meant swimming with poisonous sea snakes and hungry sharks. *Roberts* was at least 80 miles from anyone—except maybe the Iranians. Asking for assistance meant putting another U.S. ship in the minefield. Therefore, Rinn knew the men of *Roberts* would have to find their way out of this predicament alone. Safe water was anywhere from 4 to 7 hours away. Rinn thought, I hope we make it till morning; I hope we get to see the dawn.

On the flight deck, Doc got his last patient off—10 casualties transported in less than 2 1/2 hours. EN1 Dejno was not evacuated; he volunteered to stay. His expertise was needed to keep the diesels running. If they lost the diesels, they'd lose everything. They wouldn't be able to pump water out of the ship or fight fires. The ship wouldn't be able to communicate, maneuver, or defend itself.

A daring investigation by the Chief Engineer, Lt. Gordon Van Hook, and BM3 Eduardo Segovia had pinpointed the source of the fire. An access plate on the 02 level had to be removed to get to the space where fuel oil had collected. Both Rinn and Van Hook watched as crew members SM1(SW) Charles Dumas, HT1 Gary Gawor, and HT2(SW) Tom Regan, led by Lieutenant Dave Lewellyn, removed the bolts and then pried the cover away with crowbars. Flames roared up in their faces, as a column of fire shot 15 feet into the air. Van Hook tried to maintain his sense of humor as he turned to the CO and said, "Maybe this wasn't such a good idea." Fully aware that his men had to react in seconds to control the blaze, Van Hook added, "Maybe we should do this tomorrow." But his men immediately applied foam to the fire with applicators stuck into the access. The smoke changed color, from black to white. That was the first good indication they were winning the battle of the fires. By midnight, conditions were stable aboard *Roberts*. Shoring watches and fire reflash watches were set.

A crack amidships ran all the way across the ship, threatening to break it in half. Senior Chief Boatswain's Mate (SW) George E. Frost came up with an idea to keep the front half of the ship attached to the back half. The ship's Boatswain's Mates began stringing steel cables across the huge cracks in the deck and superstructure, attaching them fore to aft wherever possible. The work was hard, but soon they were showing the bystanders gathered around how it was done. Under the stars, the ingenious sailors lashed their ship together to prevent the crack from growing larger.

By 0300 the ship was quiet. Fires were out, leaks were plugged, and flooding was under control. USS *Roberts* was slowly, carefully sailing to safety. As Rinn walked the decks, he looked at his crew, exhausted, collapsed, some sleeping, some talking quietly. He reflected on what they had done in the last 10 hours. His men fought for their lives and their ship—a ship that was burning and sinking. They fought and won. He felt a powerful bond with them. They were *Samuel B. Roberts*. Their survival made all the tough work and long, boring drills, exercises, and training worthwhile.

At 0507 QM2 Nicholson made the entry "Observed sunrise" in the ship's deck log.

WOMEN IN THE NAVY

SIGNIFICANT DATES

1811	Navy surgeon recommends nurses be included among personnel at Navy hospitals.
1862	Civilian nurses serve on board the Navy's first hospital ship, USS *Red Rover*.
1908	On 13 May U.S. Navy Nurse Corps established. The first 20 nurses (in reality, the first women in the Navy) report to Washington, D.C., that October.
1913	Navy nurses serve aboard the transports USS *Mayflower* and USS *Dolphin*.
1917	On 19 March the Navy authorizes enlistment of women as volunteers. Designated as Yeomen (F), they unofficially became known as yeomenettes.
1918	On 11 November when the armistice is signed, 11,275 yeomenettes are in the naval service, with some 300 marinettes in the U.S. Marine Corps.
1920	Navy nurses serve aboard the first ship built as a floating hospital, USS *Relief* (AH 1).
1942	Naval Reserve Act of 1938 amended 30 July to include the Women's Auxiliary Reserve, later known as the WAVES (women accepted for voluntary emergency service). Wellesley College president Mildred McAfee, selected to lead the new Women's Auxiliary Reserve, is sworn in as a lieutenant commander on 3 August.
1943	By 30 July more than 27,000 women are on active duty in the Navy. Authorization is passed for a woman to hold the rank of captain, and Mildred McAfee is promoted into that rank. Navy Hospital Corps accepts women enlistees.
1945	Approximately 86,000 women on active duty in the naval service, 8,000 officers and 78,000 enlisted, constituting 18 percent of the total naval personnel assigned to shore establishments in the continental United States. Accession of women into the Navy discontinued by 17 August.
1945	On 26 July Captain Joy Bright Hancock, a former World War I yeomanette, becomes director of the WAVES. The women's ranks decrease to some 8,800 by that time.
1947	Army-Navy Nurses Act establishes the Nurse Corps as a permanent staff corps of the Navy. It also authorizes permanent commissioned rank for nurses.
1948	On 12 June President Harry Truman signs Public Law 625, the Women's Armed Services Integration Act, abolishing the Women's Auxiliary Reserve and permitting women to enter the U.S. Navy in Regular or Reserve status.
1950	Women in the Naval Reserve recalled along with their male counterparts for duty during the Korean conflict.
1952	Navy women accepted for commission in the Medical Service Corps.
1953	Women in the Hospital Corps begin serving on board hospital ships and transports carrying dependents.
1972	Navy nurse Alene Duerk, director of the Navy Nurse Corps since 1968, achieves flag rank; she is the first woman in Navy history to do so. The term WAVES is dropped as an official title.
1973	The Secretary of the Navy announces authorization of aviation training for women.
1976	U.S. Naval Academy admits women.
1978	The law prohibiting assignment of women to fill sea duty billets on support and noncombatant ships is amended in October, putting into force the Women in Ships Program.

1980	U.S. Naval Academy graduates its first women officers.
1982	By June, 193 women officers are on board 30 ships, and 2,185 enlisted women are aboard 37 ships.
Today	More than 7,200 women serve as Navy officers (10 percent of the Navy's officer strength). More than 45,000 enlisted women make up 9 percent of the Navy's enlisted ranks. Because of their combat relationship, only two officer communities—submarines and special warfare—and 18 of 103 enlisted ratings remain closed to women.

Although women did not become an official part of the Navy until 1948, they made naval tradition by serving in the Navy as early as 1811. At that time a Navy surgeon recommended women be assigned to hospitals to care for the Navy's sick and wounded. However, our nation did not act upon that recommendation until the Civil War, when women served aboard the hospital ship USS *Red Rover* in the Medical Department. Although an unofficial unit, the first trained nurses in the Navy were stationed at the Norfolk Naval Hospital to care for the injured during the Spanish-American war in 1898. A decade later (in 1908), the Navy Nurse Corps was officially born.

In addition to the Navy nurses, some 12,000 women served on active duty as "yeomenettes" in WWI. This resulted from a need for more Yeomen and personnel to handle the growing demands of the services as the nation readied itself for World War I. Josephus Daniels, then Secretary of the Navy, was responsible for this turn of events. "Is there any law that says a yeoman must be a man?" Daniels' legal advisers answered that there was not, but that up to this time only men had been enlisted. "Then enroll women in the Naval Reserve as yeomen," the secretary said. In such jobs, he added, they would offer the best "assistance that the country can provide."

Immediately after the United States entered World War I, women were taken into the Navy on a large scale "in order to release enlisted men for active service at sea." As a result, the Navy had a total of 11,275 women Yeomen by the time the armistice was signed. They were handling most of the immense volume of clerical work at the Navy Department, in addition to many highly important special duties.

Women Yeomen were stationed in Guam, the Panama Canal Zone, and Hawaii, in addition to the United States and France. About 300 "marinettes," as the enlisted women of the Marine Corps were designated, were on duty during the war. Most of them were stationed at Marine Corps Headquarters at the Navy Department, although a number were assigned with Marine Corps recruiting units.

All women Yeomen were released from active duty by 31 July 1919. Secretary Daniels sent the following message to the women Yeomen: "It is with deep gratitude for the splendid service rendered by the yeomen (F) during our national emergency that I convey to them the sincere appreciation of the Navy Department for their patriotic cooperation."

Twenty-one years after the yeomanette era, women were needed to fill an acute shortage of personnel caused by rapid expansion of the Navy for World War II. On 30 July 1942 Congress authorized establishment of the Women's Reserve, with an estimated goal of 10,000 enlisted and 1,000 officers. However, certain congressional limitations were placed on the new organization. Women could not serve at sea or outside the continental United States, and they could not go beyond lieutenant commander on the promotion ladder. On 4 August 1942 Mildred Helen McAfee was sworn in as a lieutenant commander of the U.S. Naval Reserve to become Commander of Women's Reserve.

A boot camp for women accepted for volunteer emergency service (WAVES) was established at Hunter College in New York City—it was promptly dubbed the USS Hunter. Basic training lasted from 6 to 8 weeks, and every other week about 1,680 Wave seamen had to be housed, fed, and uniformed. The Navy took over 17 apartment buildings near the college to use as housing.

At about the same time, three other schools were commissioned in the Midwest to train enlisted women as Yeomen, Storekeepers, and Radiomen. In July 1943 the Navy Japanese Language School in Boulder, Colorado, opened to women.

Navy women came to work the same hours as Navy men, standing both day and night watches. They stayed in uniform at all times except in the barracks or when engaged in active sports. They were called upon to meet the same standards of neatness and good behavior as those required of men in uniform.

In short, they were fitted into the Navy as an integral part of the service. They slipped into the same spot in the chain of command as the men they replaced and performed the same duties. This system gave Navy women—or WAVES, as they were popularly called—the same status, responsibilities, and restrictions as men.

Use of the term *WAVES* had begun when women were given the Reserve classification of W-V(S), meaning Women-Volunteer (Specialist). Since the initials WR and the term *Women's Reserve* were official, some women preferred these terms to the equally official, but less formal, use of WAVES.

As the Women's Reserve observed its second anniversary on 30 July 1944, it could look back upon a brief but glowing record of expansion and achievement. During its 2 years of existence, the Women's Reserve had freed enough officers and men to crew a fleet of 10 battleships, 10 aircraft carriers, 28 cruisers, and 50 destroyers.

In World War II, WAVES were considered directly eligible for 34 different ratings and were performing nearly every conceivable type of duty at 500 naval shore establishments.

Since the WAVES had proved their worth during the war, the Navy was reluctant to give up its programs for women. A number of Navy women were retained in service; but by the fourth anniversary of the program, only 9,800 remained on active duty.

The Women's Armed Services Integration Act, Public Law 625, marked the most significant milestone to that date in the history of women service members. This act, passed by the Senate and the House and signed by President Truman on 12 June 1948, gave women full partnership on the Navy team. The Women's Reserve was abolished and, for the first time, women became a part of the Regular Navy.

In February 1976 the Navy promoted Fran McKee (fig. 2-19) to rear admiral. She made her mark in naval history as the first woman unrestricted line officer to be selected for flag rank.

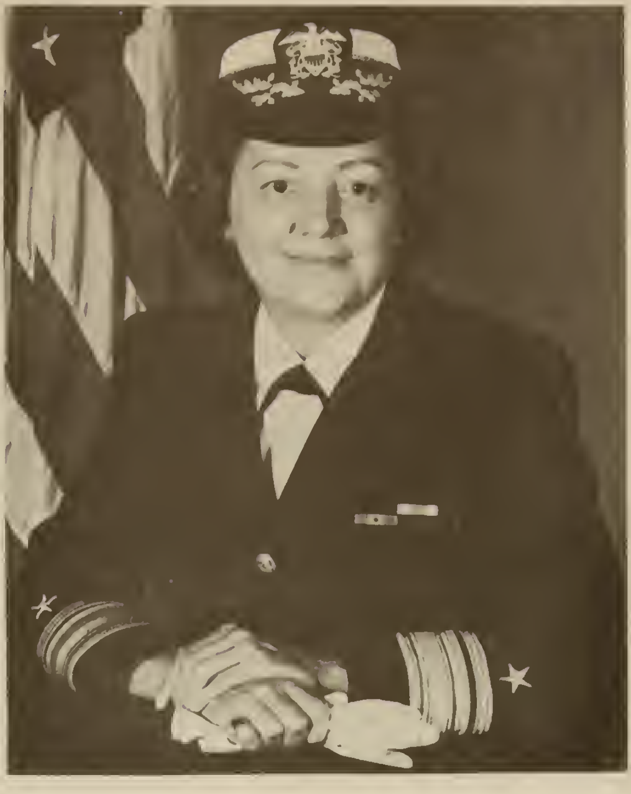

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Figure 2-19.—Rear Admiral Fran McKee is the first woman unrestricted line officer promoted to flag rank in the U.S. Navy.

At the same time the Regular Navy opened to women, the Reserve established a program for women service members. The new laws abolished the Women's Reserve and authorized the transfer of all members to appropriate components of the permanent Naval Reserve.

SUMMARY

All of the men, women, ships, and battles you have just studied were of value to our Navy. They have all created traditions and set examples for us to follow. Although we may never have the chance to create history of the magnitude they did, we still hold fast to the same principles and goals they sought. Our Navy is steeped with tradition. Many present-day Navy policies have carried over through years of tradition. This chapter is a tribute to the many great tradition makers who have served before us.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Morris, Chuck, PH1, "To See the Dawn," *All Hands* 857 (August 1988): 4-10.

Sharp, Victoria, "Saving the *Samuel B. Roberts*," *Fathom* 19 (Spring 1988): 2-7.

DEAD HORSE

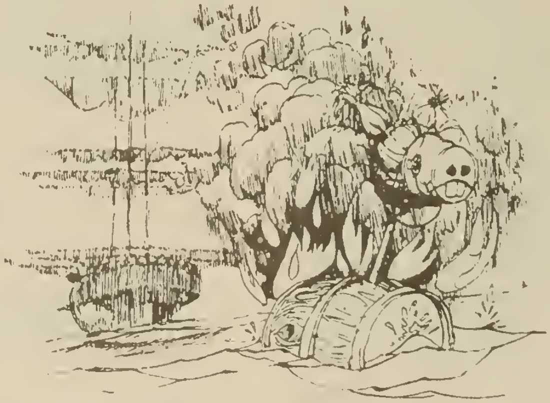
BRITISH SEAMEN, APT TO BE ASHORE AND UNEMPLOYED FOR CONSIDERABLE PERIODS BETWEEN VOYAGES, GENERALLY PREFERRED TO LIVE IN BOARDING HOUSES NEAR THE PIERS WHILE WAITING FOR SAILING SHIPS TO TAKE ON CREWS. DURING THESE PERIODS OF UNRESTRICTED LIBERTY, MANY RAN OUT OF MONEY, SO THE INNKEEPERS CARRIED THEM ON CREDIT UNTIL THEY WERE HIRED FOR ANOTHER VOYAGE.

WHEN A SEAMAN WAS BOOKED ON A SHIP, HE WAS CUSTOMARILY ADVANCED A MONTH'S WAGES. IF NEEDED. TO PAY OFF HIS BOARDING HOUSE DEBT. THEN, WHILE PAYING BACK THE SHIP'S MASTER, HE WORKED FOR NOTHING BUT "SALT HORSE" THE FIRST OF SEVERAL WEEKS ABOARD.

SALT HORSE WAS THE STAPLE DIET OF EARLY SAILORS AND IT WASN'T EXACTLY TASTY CUISINE. CONSISTING OF A LOW QUALITY BEEF THAT HAD BEEN HEAVILY SALTED, THE SALT HORSE WAS TOUGH TO CHEW AND EVEN HARDER TO DIGEST.

WHEN THE DEBT HAD BEEN REPAID, THE SALT HORSE WAS SAID TO BE DEAD AND IT WAS TIME FOR GREAT CELEBRATION AMONG THE CREW. USUALLY, AN EFFIGY OF A HORSE WAS CONSTRUCTED FROM ODDS AND ENDS, SET AFIRE, AND THEN CAST AFLOAT TO THE CHEERS AND HILARITY OF THE EX-DEBTERS.

TODAY, JUST AS IN THE DAYS OF SAIL, "DEAD HORSE" REFERS TO A DEBT TO THE GOVERNMENT FOR ADVANCE PAY. SAILORS TODAY DON'T BURN EFFIGIES WHEN THE DEBT IS PAID, BUT THEY ARE NO LESS JUBILIANT THAN THEIR COUNTERPARTS OF OLD.



CHAPTER 3

THE NAVAL OFFICER'S CAREER

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the procurement sources for commissioned officers.
2. Describe the sources for commissioning opportunities of enlisted personnel.
3. Explain the purpose, use, and content of the microfiche record.
4. Identify the purpose, use, and content of the officer's service record.
5. Explain the purpose, use, and content of the officer's fitness report.
6. Describe the typical development paths for surface warfare officers, surface warfare nuclear officers, submarine officers, aviation officers, supply officers, and general unrestricted line officers.
7. Describe the selection board process for promoting officers.
8. Explain the difference between pay and allowances.
9. Explain the various benefits and services available to military personnel and their dependents.
10. Identify the three types of retirement.

What motivates a person to become a naval officer? Different motives make people decide they want to become a naval officer, including patriotism, dedication, and a desire to serve. Rarely is anyone impelled to any action by a single force. Just as people are complicated, so are the things that influence them.

The responsibility accorded a naval officer motivates many people to choose a naval career. Their dedication to that responsibility corresponds to their understanding of the authority vested in them.

Many newly commissioned officers are not certain of the total implications of their new responsibilities. However, career officers are of necessity aware of their tremendous responsibilities.

Each person entering the Navy takes an oath to uphold and defend the Constitution against all enemies, to bear true faith and allegiance, and to faithfully discharge the duties of his or her office. That oath leaves little doubt as to what the Navy expects of its people.

That a naval officer must have dedication is obvious. That a naval officer is a professional in the truest sense of the word is equally clear. Dedication will smooth the rough spots that invariably lie in the path of any endeavor. Professional knowledge and competence will help resolve the complex problems that a naval officer faces.

The President has ''special trust and confidence'' in the abilities of officers and has granted them extensive authority. When officers are commissioned, they reaffirm the basic oath; but their commission places an even greater responsibility on them. Their commission is a contract with the nation to do all in their power to render themselves fully capable of leading men and women in war. The terms in the commissioning oath have been previously spelled out. The nation will keep its bond to the oath; it expects no less from its officers.

Our nation never seeks war; but by staying prepared and vigilant, our enemies know we will retaliate to any act of aggression. As a result, naval officers' responsibilities in the uneasy times in which we live are impressive. Naval officers are charged with doing everything in their power to maintain and increase national strength. They accomplish that by being proficient in professional skills, properly training and guiding their subordinates, and developing improved devices and methods. Our nation relies on its naval officers to exercise the most exacting and diligent care of the men, women, and materials placed in their trust.

In considering the demands of the nation, military officers are entitled to ask what benefits they will reap from a naval career. First, career officers may expect the gratitude of their nation. That gratitude is expressed in tangible ways. Their pay and allowances are established and maintained by law. In the event of sickness or disablement, their welfare is ensured. By virtue of their status as officers, they are held in respect by their fellow citizens and have an inherent prestige that few other professions can equal.

Second, officers will find in their tours of duty a varied and challenging way of life. Their active duty often takes them to many parts of the world. Regardless of their position as a line or staff officer, they will be called upon to perform a great number of different tasks. Their educational opportunities enhance their naval career as well as any future career they might have upon their return to civilian life. They serve and become comrades of an almost infinite variety of men and women. They encounter a minimum of personal favoritism. That provides a continuing opportunity for them to advance based on their own merits and abilities. In short, their lives are seldom routine and never dull. They do not live a haphazard existence, despite its intriguing variety. Their lifestyle is balanced by their membership in a competently administered, well-organized professional Navy.

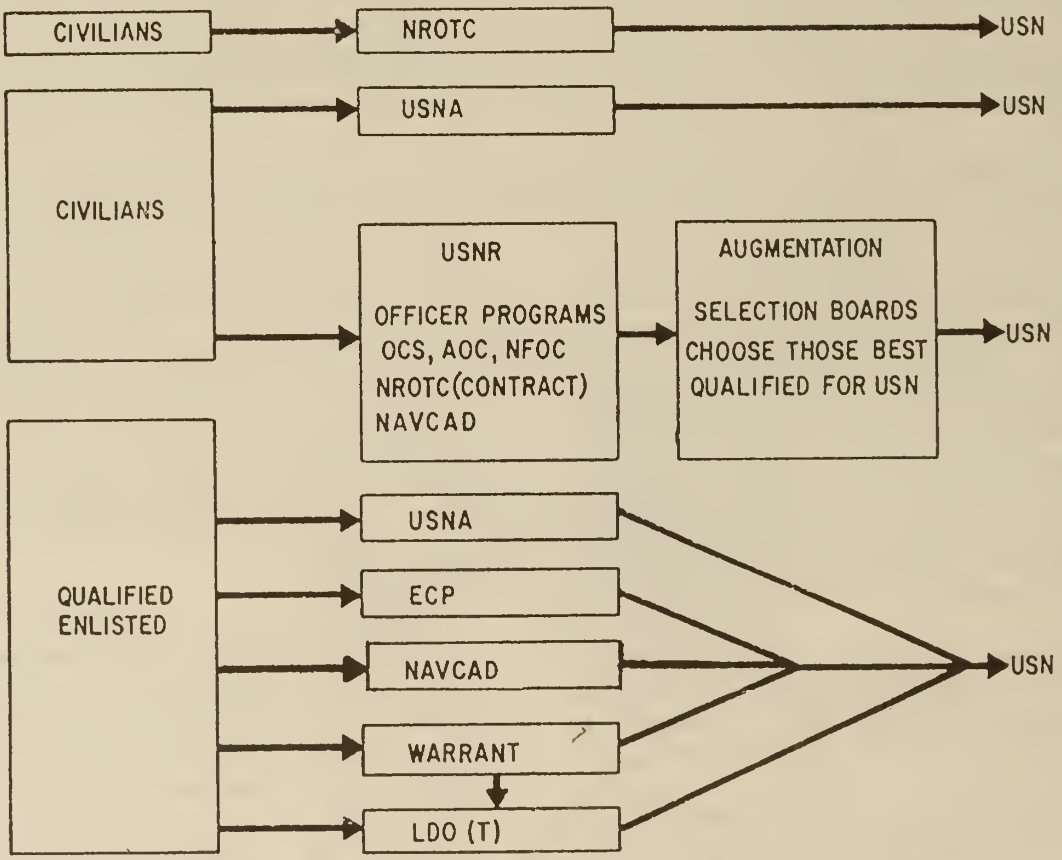


Figure 3-1.—A number of programs serve as the Navy's source for procuring trained officers.

OFFICER PROCUREMENT

SIGNIFICANT DATES

22 Dec. 1775	Commissions are approved for first Regular officers of the Navy.
25 Jul. 1777	Subsistence of naval officers while in foreign ports is authorized by Congress.
17 Dec. 1810	Future Admiral David G. Farragut is appointed to the rank of midshipman.
11 Jul. 1846	First Naval Academy graduate, Richmond Aulicks, commissioned a passed midshipman.
26 Jun. 1884	Commissioning of Naval Academy graduates as ensigns authorized by Congress.
2 May 1955	Navy announces the Aviation Officer Candidate Program.

The current requirement for naval officers on active duty is about 71,000. Approximately 6,200 persons are commissioned as Regular or Reserve officers and ordered to active duty each year. The Navy's active-duty officer programs are aimed at the fulfillment of established goals based on projected requirements. The Regular officer procurement programs do not provide sufficient officers to maintain the USN structure. Therefore, qualified Reserve officers who apply are selected for USN status as needed to maintain the career officer cadre of the Navy.

Our naval officers are procured from several different sources (fig. 3-1). A career as a naval officer is open to civilians through the Naval Academy or a college NROTC program (NROTC programs are the largest source). Selected civilian college graduates who are qualified in appropriate specialties may receive a direct appointment. Officer Candidate School (OCS) and Aviation Officer Candidate School (AOCS) are open to civilians and military personnel who have earned a degree. For enlisted personnel already serving in the Navy, other routes are discussed in the following paragraphs.

NAVAL AVIATION CADET

The Naval Aviation Cadet (NAVCAD) Program provides naval aviation training to qualified men and women with 2 or more years of approved college courses.

When NAVCADs successfully complete aviation training, they are appointed as officers in the Naval Reserve and designated as Navy pilots.

The NAVCAD Program is open to qualified civilians and enlisted personnel who have not previously been disenrolled from any flight program.

Eligibility Requirements:

1. Age—At least 19, but not have reached 25th birthday before reporting to AOCS.
2. Citizenship—United States citizen only.
3. Marital Status—Single with no dependents; must remain single until commissioning. There are no exceptions to this rule.
4. Additionally, they must meet all physical requirements, including 20/20 uncorrected vision and height limitations.

NAVCAD applicants must complete AOCS and attend basic and advanced flight training. The NAVCAD is obligated for 6 years of active commissioned service after becoming a naval aviator.

CHIEF WARRANT OFFICER (CWO) PROGRAM

The mounting sophistication of ships, aircraft, and weapons systems requires commissioned officer specialists. These officers must be able to closely supervise complicated machinery and weapons as well as the enlisted technicians who maintain and operate them.

A chief warrant officer, although commissioned from the enlisted ranks, bridges the gap between the enlisted and commissioned structures. The CWO structure provides flexibility in two separate areas. A chief warrant officer grows in competence during his or her progression through the enlisted and warrant fields, while remaining within a specific technical field or job skill. The CWO can also be assigned repeatedly to similar billets largely irrespective of grade within the structure.

The CWO Program is open to both men and women. It provides a path of advancement to warrant status for chief petty officers of the

Regular Navy and Naval Reserve. To qualify for the program, they must have demonstrated outstanding performance in the technical fields indicated by their enlisted ratings. They must be on active duty to be considered by the selection board and, if selected, remain on active duty until their appointments are tendered. Selectees normally receive 6 or 8 weeks of training at an officer indoctrination school, followed by technical training as appropriate. (Supply Corps personnel, however, receive 6 months of training.)

The appointment of each chief and senior chief petty officer will be to the grade of chief warrant officer, CWO-2. Master chief petty officers could also be appointed to CWO-2 but may be recommended for appointment for CWO-3 if they fulfill the following requirements:

1. Must have performed duties equating to those of a chief warrant officer, CWO-2, for a minimum of 2 years during their 20th to 24th years of service.
2. Must have performed such duties in the warrant technical specialty for which application is made.

LIMITED DUTY OFFICER (LDO) PROGRAM

The LDO Program is somewhat like the CWO Program in that it permits officers to continue working in the broad technical fields associated with their rating. Inputs are limited to selected chief warrant officers and senior enlisted personnel. Each selected commissioned warrant applicant will be appointed to the temporary grade of lieutenant (junior grade). Selected enlisted applicants will be appointed to the temporary grade of ensign.

ENLISTED COMMISSIONING PROGRAM (ECP)

The Enlisted Commissioning Program (ECP) provides enlisted personnel with an associate degree the opportunity to earn a baccalaureate degree and a commission as an unrestricted line officer. Candidates are enrolled full time at an NROTC host university. Upon completion of ECP, the candidate attends OCS.

Eligibility requirements:

1. Be a U.S. citizen
2. Be serving on active duty
3. Have time in service of between 4 and 11 years
4. Be at least 22 years of age but not have passed the 31st birthday
5. Be physically qualified for appointment to the unrestricted line
6. Have no record of conviction by court-martial or civil court, other than minor traffic violations
7. Meet high standards of personal conduct, character, patriotism, sense of duty, and financial responsibility
8. Have a cumulative grade-point average (GPA) of not less than 2.3 on the 4.0 scale for all college-level courses completed
9. Be recommended by the commanding officer

While undergoing training at the participating college/university under the ECP, the ECP officer candidate will receive full pay and allowances. However, the ECP officer candidate will be responsible for paying all educational expenses.

Service obligation:

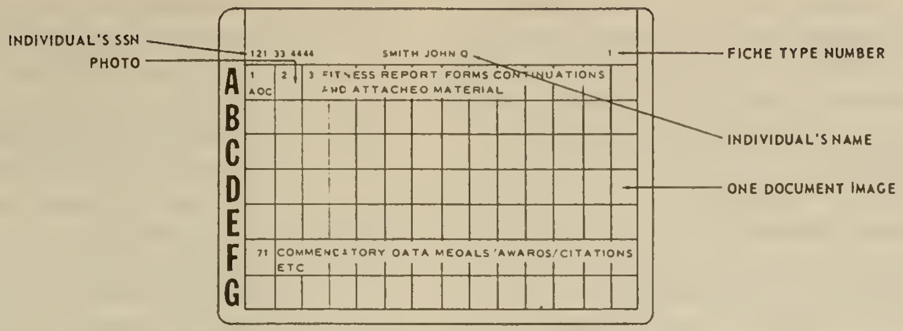
1. Six years of active enlisted service will be incurred from the date of enrollment in the ECP.
2. Four years of active commissioned service will be incurred upon commissioning.

OFFICER'S RECORD

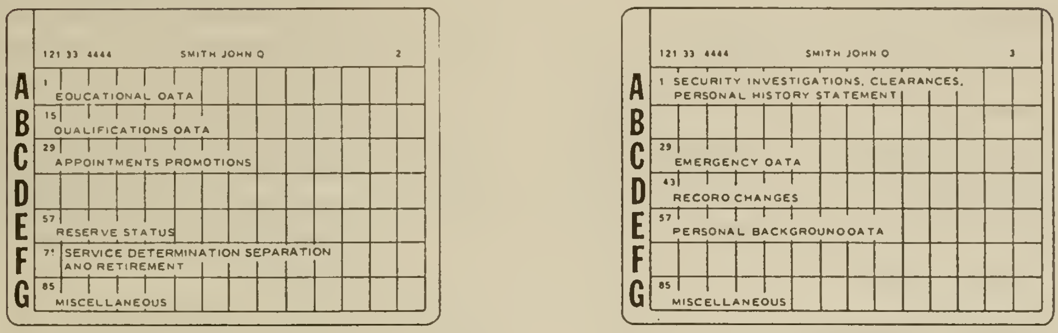
An officer's record is maintained for Regular Navy and Naval Reserve officers at the Bureau of Naval Personnel (BUPERS). The record is intended to reflect the official history of the officer's career in the Navy. It is the property of the government and not of the officer concerned. This official record contains any document that bears or reflects on the character, performance, professional qualifications, and fitness of the officer. This record shall not be used as a depository for documents of a personal nature that have no bearing on personnel functions. The record is reviewed when any change in status is contemplated, such as assignment to duty, promotion, court-martial, or disciplinary action by the Chief of Naval Personnel. The record is of particular importance in selection for promotion.

MICROFICHE

All officer personnel records held in BUPERS have been converted from paper to microfiche files. As shown in figures 3-2 and 3-3, the officer's


INDIVIDUAL'S SSN
PHOTO
121 33 4444
SMITH JOHN Q
1
FICHE TYPE NUMBER
1 AOC
2
3 FITNESS REPORT FORMS CONTINUATIONS AND ATTACHED MATERIAL
INDIVIDUAL'S NAME
ONE DOCUMENT IMAGE
71 COMMENDATORY DATA MEDALS AWARDS/CITATIONS ETC
A
B
C
D
E
F
G

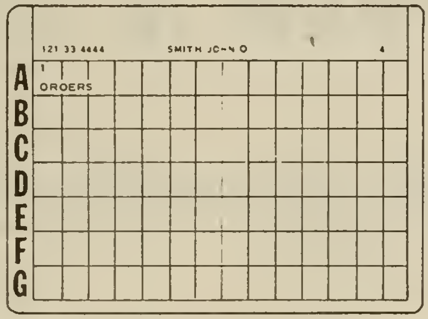
OFFICER FICHE 1 FITNESS AND AWARDS


121 33 4444
SMITH JOHN Q
2
1 EDUCATIONAL DATA
15 QUALIFICATIONS DATA
29 APPOINTMENTS PROMOTIONS
57 RESERVE STATUS
71 SERVICE DETERMINATION SEPARATION AND RETIREMENT
85 MISCELLANEOUS
121 33 4444
SMITH JOHN Q
3
1 SECURITY INVESTIGATIONS, CLEARANCES, PERSONAL HISTORY STATEMENT
29 EMERGENCY DATA
43 RECORD CHANGES
57 PERSONAL BACKGROUND DATA
85 MISCELLANEOUS
A
B
C
D
E
F
G

OFFICER FICHE 2 PROFESSIONAL HISTORY

OFFICER FICHE 3 PERSONAL DATA

Figure 3-2.—Officer fiche formats.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SMITH JOHN Q
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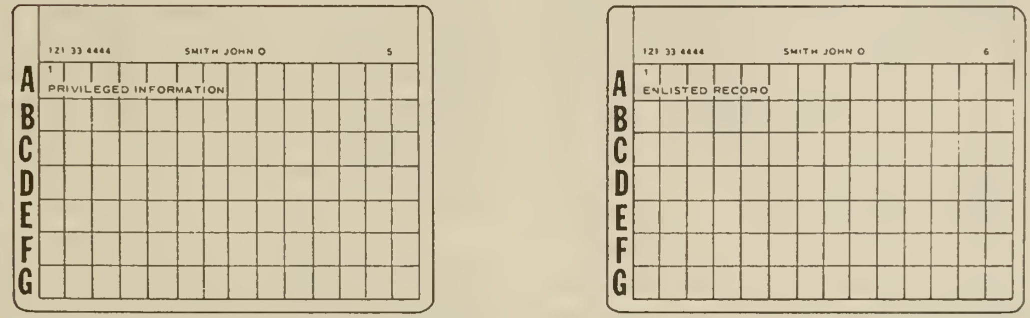
OFFICER FICHE 4 ORDERS


121 33 4444
SMITH JOHN Q
5
1 PRIVILEGED INFORMATION
121 33 4444
SMITH JOHN Q
6
1 ENLISTED RECORD
A
B
C
D
E
F
G

OFFICER FICHE 5 PRIVILEGED INFORMATION

OFFICER FICHE 6 ENLISTED RECORD

Figure 3-3.—Officer fiche formats.

record may contain up to six categories of microfiche information and documents. Some of the information and documents that may be filed under the six categories are as follows:

1. Fiche No. 1—Fitness and Awards
    - Current photograph
    - Fitness reports
    - Medals/awards/citations
2. Fiche No. 2—Professional History
    - Education
    - Qualifications
    - Appointments/promotions
    - Reserve status
    - Service determination, separation, and retirement
3. Fiche No. 3—Personal Data
    - Security data
    - Record of emergency data
    - Record changes
    - Personal background data (citizenship, casualty, death, biography)
    - Miscellaneous information—For example, physical examination report
4. Fiche No. 4—Orders
    - First duty
    - Training duty
    - Separation
5. Fiche No. 5—Privileged Information (Prepared only as correspondence warrants)
    - Adverse information (Based on *Navy Regulations*, adverse matter shall not be placed in an officer's record without the knowledge of the officer. In all cases, it shall be referred to the officer on which the matter is being reported for such official statement as may be desired. If the officer who is being reported chooses to make no statement, that intention must be so indicated in writing. The Chief of Naval Personnel interprets what constitutes adverse matter.)
    - Extracts from the findings and recommendations of courts and boards concerning the officer (These include statements of disciplinary action and court-martial orders or promulgating letters of general court-martial when a finding of guilty has been found. A trial may result in an acquittal of all charges and specifications, or the final review of a conviction may result in action equivalent to an acquittal of all charges and specifications. In such cases court-martial orders or the promulgating letters of court-martial shall not be included in the officer's record. No entry whatever regarding the acquittal shall appear in the officer's official record, neither the fact that the person has been tried nor any mention of the offense. Complete records of proceedings of court-martial inquiries, investigations, and so forth, are filed in the Office of the Judge Advocate General.)
6. Fiche No. 6—Enlisted Record
    - The information included in this fiche shows schools attended, qualifications achieved, awards received, and other information pertinent to a naval officer's career. This record is prepared for officers who have served as enlisted members for 2 or more years and whose officer microform record was established during the initial conversion process from paper to microfiche. Enlisted documents for officers who completed less than 2 years of enlisted service are distributed in the appropriate subject matter field on fiche 1 through 5.

The official officer record presented to selection boards contains fiche numbers 1; 2; and, if it exists, 5 for active-duty officers. It contains fiche numbers 1; 2; 4; and, if it exists, 5 for Naval Reserve (inactive and TAR) officers. Fiche numbers 3 and 6 are normally maintained for administrative purposes only. However, upon request, boards may be provided with fiche number 3 to determine an officer's medical status.

Commendatory correspondence may not be filed in the officer's official record. The reporting senior should consider any commendatory correspondence or recognition for performance beyond that normally expected when evaluating overall performance in preparing the officer's fitness report. If considered appropriate, an entry should be made in the remarks section of the fitness report reflecting the commendatory material received and any other pertinent related facts.

Access to the record of an officer is normally limited to the following persons:

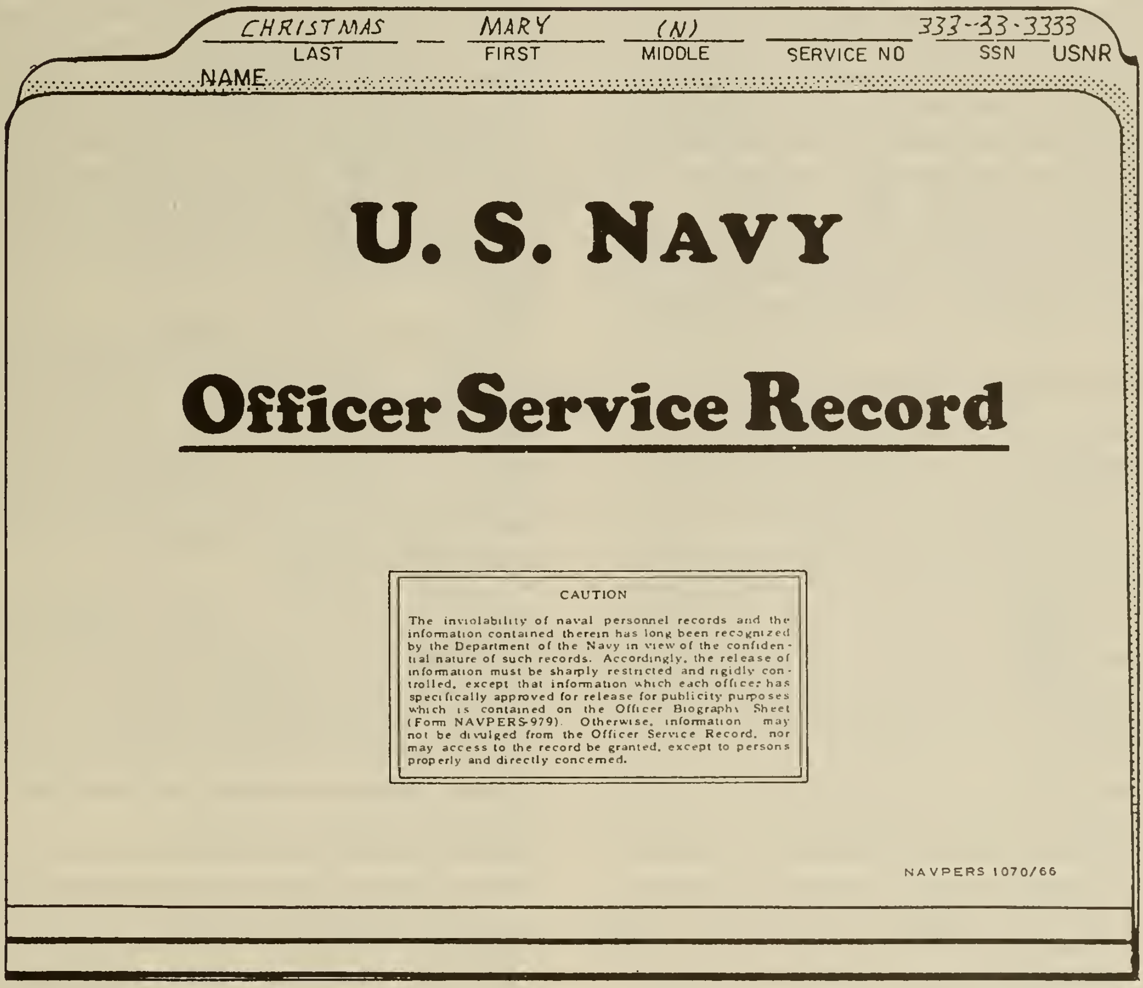
- The officer concerned
- An agent or representative of the officer specifically authorized in writing
- The Chief of Naval Personnel and authorized assistants in the conduct of their official duties
- Members of boards convened by the Navy
- Members of a courts-martial board
- The clerk of the court of competent jurisdiction in response to a valid order from that court

Any matter rightfully placed in the official record of an officer may not be removed except by special authorization of the Secretary of the Navy (SECNAV). The record is permanent. Once submitted to BUPERS, a fitness report becomes the property of the Navy Department and is not subject to change. A report may be amended or supplemented by correspondence forwarded through official channels. In such cases the forwarding correspondence will be microfilmed and made a part of the fitness report being amended or supplemented.

Anonymous communications are not made part of an officer's official record.

OFFICER SERVICE RECORD

An officer service record (fig. 3-4) is maintained for every officer in addition to the officer's record in BUPERS. The officer service record is a



NAME	CHRISTMAS	MARY	(N)		333-33-3333
	LAST	FIRST	MIDDLE	SERVICE NO	SSN USNR

U. S. NAVY

Officer Service Record

CAUTION

The inviolability of naval personnel records and the information contained therein has long been recognized by the Department of the Navy in view of the confidential nature of such records. Accordingly, the release of information must be sharply restricted and rigidly controlled, except that information which each officer has specifically approved for release for publicity purposes which is contained on the Officer Biography Sheet (Form NAVPERS-979). Otherwise, information may not be divulged from the Officer Service Record, nor may access to the record be granted, except to persons properly and directly concerned.

NAVPERS 1070/66

Figure 3-4.—Cover for officer service record.

brown manila file folder containing information in a format similar to that in the enlisted service record.

For the active-duty officer, the service record is maintained by the activity to which the person is attached.

For inactive-duty officers and retired officers, the responsibility for maintenance of service records depends on whether the officers are participating in inactive-duty training. For those not participating (that is, not having orders for any type of inactive-duty training), the records are maintained by the Commanding Officer, Naval Reserve Personnel Center, New Orleans, Louisiana.

The officer service record is designed to provide a ready file of documents that may be used for billet assignment and other administrative purposes. It may also be used to establish facts, when necessary, regarding an officer's naval service.

The right side of the record is reserved for documents affecting utilization and assignment of the officer concerned. The left side is used for information primarily related to the officer's present tour of active duty. Accordingly, some items filed on the left side are removed from the folder when the officer is transferred. Miscellaneous documents not pertaining to either of the above categories, but establishing significant facts relating to the officer's service, are also filed on the left side.

The *Naval Military Personnel Command Manual* (*MILPERSMAN*) gives a list of the documents to be filed on each side and the order of filing.

OFFICER FITNESS REPORTS

Fitness reports form one of the most important documents of an officer's record. They provide a record of the duty performed and the manner of performance as well as the officer's professional qualifications and commendations. These reports provide a record of censorious matter, disciplinary action, and any special qualifications and personal characteristics of the officer. The fitness report also records an officer's general state of health and endurance as it affects the officer's value to the naval service.

Fitness reports are the primary instrument by which the best qualified officers are promoted. They are also the primary instrument by which officers with the particular qualifications required are chosen to fill responsible positions in the military establishment. In addition, they are used as evidence before courts-martial and in connection with disciplinary action of a lesser degree. Each report should be a frank, accurate, and comprehensive evaluation of the officer's characteristics and performance.

Because of the importance of these reports, all officers should become familiar with both the form and the instructions concerning its use. NAVPERS 1611/1 (fig. 3-5) is the optical character recognition (OCR) form on which fitness reports are submitted. Specific instructions for completing the form are issued by BUPERS.

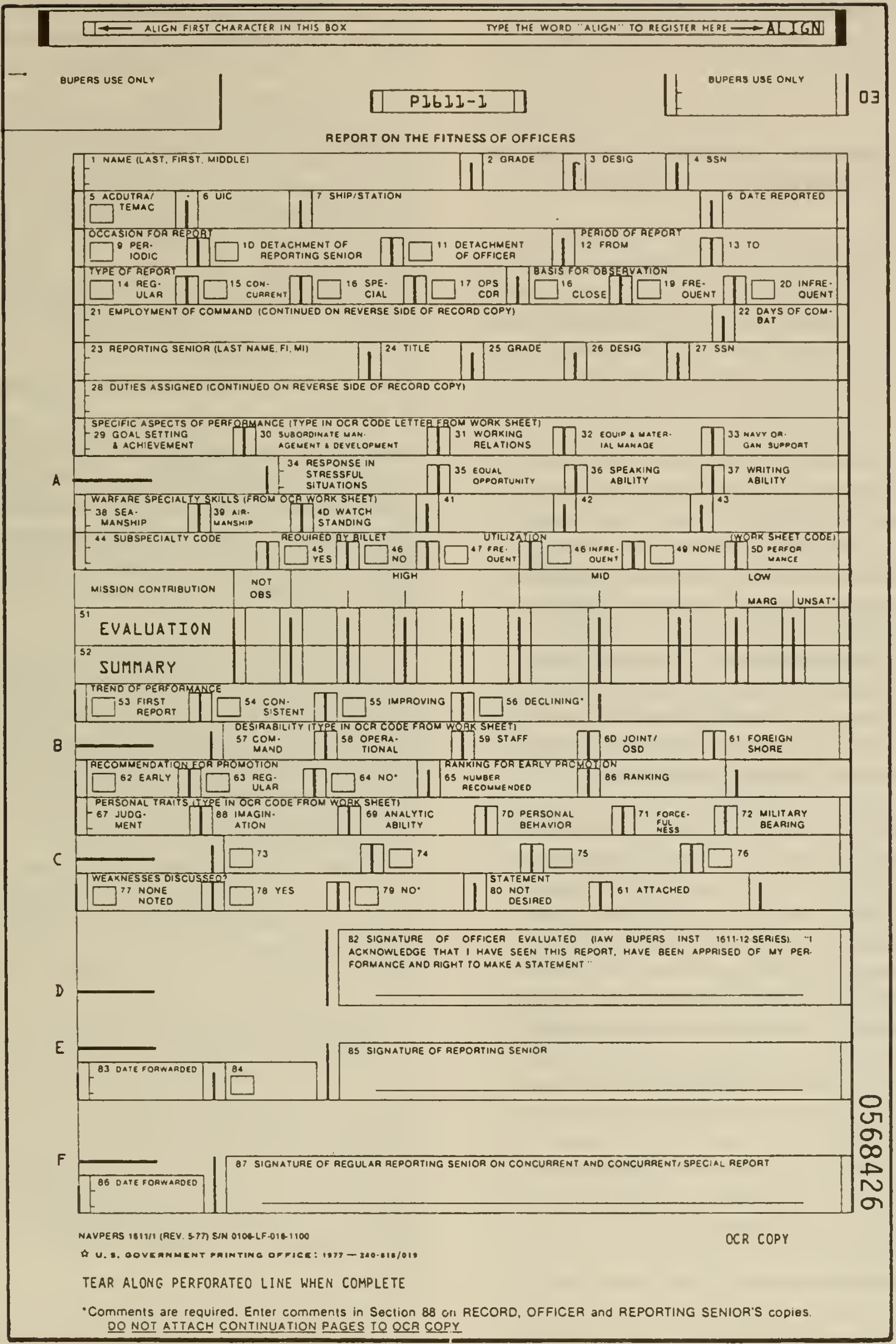
We mentioned earlier that access to an officer's record in BUPERS may be granted to the officer concerned or to a representative designated by the officer. When in Washington, D.C., all officers should take advantage of the opportunity to visit the Records Review Room in BUPERS. They can then review their record to ensure no fitness reports are missing. If reports are missing, officers can request that those fitness reports be submitted before the next selection board. By reviewing their record, officers can also determine whether, in the opinion of successive reporting seniors, some aspect of their professional ability or qualifications has declined. Officers may then have the opportunity to take remedial action (engage in self-improvement).

All superiors exercising command functions are responsible for completing fitness reports on all officers who have reported to them for duty. This must be done based on orders issued by the Secretary of the Navy, the Chief of Naval Personnel, or others authorized to issue such orders.

Reports of fitness on Regular and Reserve officers on active duty are submitted at least annually based on a schedule published by the Chief of Naval Personnel. Reserve officers involved in training and administration of Reserves (TARs) on extended duty, who compete among themselves for promotion, have a different submission schedule.

Reports of fitness on Reserve officers who perform active-duty for training are submitted on NAVPERS 1611/1 directly to the Chief of Naval Personnel. The commanding officer of the ship or station where the officer performs the active duty is responsible for submitting the report. The occasion for such reports is "detachment of officer."

Most scheduled submission dates are approximately 3 months before the usual convening dates of applicable selection boards. This schedule provides each board with the latest performance evaluations. The more frequent submission of reports for junior officers is required to speed up



☐ ← ALIGN FIRST CHARACTER IN THIS BOX TYPE THE WORD "ALIGN" TO REGISTER HERE → ALIGN

BUPERS USE ONLY

P1611-1

BUPERS USE ONLY

03

REPORT ON THE FITNESS OF OFFICERS

1 NAME (LAST, FIRST, MIDDLE) | 2 GRADE | 3 DESIG | 4 SSN

5 ACDUTRA/TEMAC ☐ | 6 UIC | 7 SHIP/STATION | 6 DATE REPORTED

OCCASION FOR REPORT: ☐ 9 PERIODIC | ☐ 10 DETACHMENT OF REPORTING SENIOR | ☐ 11 DETACHMENT OF OFFICER | PERIOD OF REPORT: 12 FROM | 13 TO

TYPE OF REPORT: ☐ 14 REGULAR | ☐ 15 CONCURRENT | ☐ 16 SPECIAL | ☐ 17 OPS CDR | BASIS FOR OBSERVATION: ☐ 16 CLOSE | ☐ 19 FREQUENT | ☐ 20 INFREQUENT

21 EMPLOYMENT OF COMMAND (CONTINUED ON REVERSE SIDE OF RECORD COPY) | 22 DAYS OF COMBAT

23 REPORTING SENIOR (LAST NAME, FI, MI) | 24 TITLE | 25 GRADE | 26 DESIG | 27 SSN

28 DUTIES ASSIGNED (CONTINUED ON REVERSE SIDE OF RECORD COPY)

SPECIFIC ASPECTS OF PERFORMANCE (TYPE IN OCR CODE LETTER FROM WORK SHEET): 29 GOAL SETTING & ACHIEVEMENT | 30 SUBORDINATE MANAGEMENT & DEVELOPMENT | 31 WORKING RELATIONS | 32 EQUIP & MATERIAL MANAGE | 33 NAVY ORGAN SUPPORT

A | 34 RESPONSE IN STRESSFUL SITUATIONS | 35 EQUAL OPPORTUNITY | 36 SPEAKING ABILITY | 37 WRITING ABILITY

WARFARE SPECIALTY SKILLS (FROM OCR WORK SHEET): 38 SEAMANSHIP | 39 AIRMANSHIP | 40 WATCH STANDING | 41 | 42 | 43

44 SUBSPECIALTY CODE | REQUIRED BY BILLET: ☐ 45 YES | ☐ 46 NO | UTILIZATION: ☐ 47 FREQUENT | ☐ 46 INFREQUENT | ☐ 49 NONE | (WORK SHEET CODE) 50 PERFORMANCE

MISSION CONTRIBUTION	NOT OBS	HIGH				MID		LOW	
								MARG	UNSAT*
51 EVALUATION									
52 SUMMARY									

TREND OF PERFORMANCE: ☐ 53 FIRST REPORT | ☐ 54 CONSISTENT | ☐ 55 IMPROVING | ☐ 56 DECLINING*

B | DESIRABILITY (TYPE IN OCR CODE FROM WORK SHEET): 57 COMMAND | 58 OPERATIONAL | 59 STAFF | 60 JOINT/OSD | 61 FOREIGN SHORE

RECOMMENDATION FOR PROMOTION: ☐ 62 EARLY | ☐ 63 REGULAR | ☐ 64 NO* | RANKING FOR EARLY PROMOTION: 65 NUMBER RECOMMENDED | 86 RANKING

PERSONAL TRAITS (TYPE IN OCR CODE FROM WORK SHEET): 67 JUDGMENT | 88 IMAGINATION | 69 ANALYTIC ABILITY | 70 PERSONAL BEHAVIOR | 71 FORCEFULNESS | 72 MILITARY BEARING

C | ☐ 73 | ☐ 74 | ☐ 75 | ☐ 76

WEAKNESSES DISCUSSED? ☐ 77 NONE NOTED | ☐ 78 YES | ☐ 79 NO* | STATEMENT: 80 NOT DESIRED | 61 ATTACHED

D | 82 SIGNATURE OF OFFICER EVALUATED (IAW BUPERS INST 1611-12 SERIES). "I ACKNOWLEDGE THAT I HAVE SEEN THIS REPORT, HAVE BEEN APPRISED OF MY PERFORMANCE AND RIGHT TO MAKE A STATEMENT"

E | 83 DATE FORWARDED | 84 ☐ | 85 SIGNATURE OF REPORTING SENIOR

F | 86 DATE FORWARDED | 87 SIGNATURE OF REGULAR REPORTING SENIOR ON CONCURRENT AND CONCURRENT/SPECIAL REPORT

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NAVPERS 1611/1 (REV. 5-77) S/N 0106-LF-016-1100

☆ U.S. GOVERNMENT PRINTING OFFICE: 1977 — 240-616/019

OCR COPY

TEAR ALONG PERFORATED LINE WHEN COMPLETE

*Comments are required. Enter comments in Section 88 on RECORD, OFFICER and REPORTING SENIOR'S copies.
DO NOT ATTACH CONTINUATION PAGES TO OCR COPY

Figure 3-5.—Report on the Fitness of Officers (NAVPERS 1611/1) (front).

the collection of information in their records. It is also needed to help supervise those officers more closely and to establish a basis on which they may be considered for postgraduate schooling and other training.

In addition to the foregoing, regular detachment reports on all officers are submitted upon their permanent detachment or upon the permanent detachment of their regular reporting seniors.

Submission of fitness reports for brief periods isn't needed. The intent is for fitness reports to cover all time in a duty status. Therefore, to help administer the reports and avoid their needless submission, the person filing the report may modify the prescribed reporting periods as follows:

> A reporting senior may extend a periodic report for a maximum of 60 days on either end of the period involved when either the officer on which the report is being filed or the reporting senior reports for duty before or is detached after the period to be extended. For example, a commander who reports for duty on 12 May 1990 and whose regular reporting senior is detached on 21 June 1990 could properly receive only one report of fitness for the entire period beginning 12 May 1990. A reporting senior who is being detached, however, must submit a fitness report on every officer who is aboard as of the day of the reporting senior's detachment, regardless of how brief a period may be involved.
>
> When an officer reports on board for temporary duty for purposes of briefings, training, indoctrination, or awaiting further transportation for a period not to exceed 30 days, the period involved and nature of assigned duties often prevent a meaningful evaluation. In such instances, the temporary duty reporting senior need not submit a fitness report. However, the temporary duty reporting senior must ensure that both the officer concerned and the ultimate command are advised that no report has been or will be submitted for such period. Additionally, the ultimate command must be provided all training information to record in the next regular report. The ultimate command must cover the temporary duty, as well as other transient time, in the next regular report.

Preparation of Fitness Reports

The importance of keeping the records of officers continuously complete in all respects requires prompt submission of the report.

Officers' fitness report files should contain a complete and continuous record of all the time spent in an active-duty status. The period of the report should begin with the day after the terminal date of the last report or the date officers were detached from their last duty station. Time between stations spent in transit, on leave, in the hospital, or on inactive duty should be shown in the report. The reporting senior's marks and remarks are limited to the period during which officers were under the senior's command.

Commanding officers frequently require their executive officers and department heads to report to them on the performance of officers serving under their supervision. Commanding officers use these reports in making reports on the fitness of officers under their command. They do not forward these reports to the Chief of Naval Personnel.

After a naval action or campaign and after service on shore with an expeditionary force or force of occupation, an entry is made on each participating officer's next fitness report. The entry states the kinds of services performed and gives the dates and names of any engagements in which the officer took part.

Officers in the grades of chief warrant officer (CWO-2) and ensign through lieutenant must, except in unusual circumstances, sign the record copy regardless of the report content. The report must be signed in ink by both the officer being evaluated and the reporting senior.

Officers in the grades of CWO-3 and CWO-4 and lieutenant commander through captain may be given counseling about the report upon request. However, reports shall not be shown to them as a matter of routine. When the report has been discussed but not shown to the officer, the words *REPORT DISCUSSED* are typed in section 82 of both the OCR form and record copies of the report.

Reporting seniors will show fitness reports to officers in the grades of CWO-2 and ensign through lieutenant. This action will be accompanied by personal counseling. A frank and meaningful discussion and explanation of the report must be conducted so that the officers may fully understand their performance.

Special Fitness Reports

Special reports of fitness may be submitted on officers whenever they conduct themselves in any of the following manners:

1. Distinguish themselves in battle
2. Perform an outstanding act of valor or devotion to duty
3. Display extraordinary courage, ability, or resource in time of peril or great responsibility
4. Are guilty of serious misconduct or marked inefficiency

Adverse Reports

Adverse matter is not placed in the records of officers without their knowledge. A fitness report containing adverse matter is referred officially in writing to the officer on which the report is being submitted. If desired, the officer may then make an official statement in reply. If the officer desires to make no statement, that choice must be stated officially in writing. The statement (or nonstatement) is endorsed by the reporting senior and forwarded to the Chief of Naval Personnel together with the fitness report. When the adverse report is not returned within a reasonable time, the reporting senior must prepare an explanation of the circumstances. A signed duplicate report is then sent with the explanation to the Chief of Naval Personnel. The officer being reported is informed when that is done.

Submission of Report

When the report of fitness is completed, the regular reporting senior forwards it directly to the Chief of Naval Personnel.

Any reports concerning the actions or performance of the officer during a transit period between stations are addressed to the superior to whom the officer is reporting for duty. The superior normally attaches these reports to the next regular report of fitness. When the nature of such reports requires early action by the Chief of Naval Personnel, they are forwarded to him immediately.

The reports of fitness of officers are considered and treated as private and official. The reports are forwarded in double envelopes. If classified information is mentioned in a fitness report, the instructions issued in the *Department of the Navy Information and Personnel Security Program Regulation* apply.

Officers may, upon request, obtain copies of the five most recent reports in their record. A written request may be submitted directly to BUPERS.

PROFESSIONAL DEVELOPMENT PATH

In the assignment of officer personnel, the Navy is influenced by the needs of the service, the current composition of the officer corps, and the professional development of each officer. Every effort is made to place officers in billets of their choice, while the service needs and the person's qualifications are also considered.

A service need is simply the day-to-day requirement of Navy activities for specific grades with certain talents. Professional development has a dual nature. First, in ordering officers to varied types of duties and schools, the Navy furthers its own mission of preparing these officers for future command responsibilities. Second, the Navy performs a genuine service for these officers by filling out their experience and thus increasing their promotional prospects. The desires of the officers are also considered because they have an obvious bearing on morale. Marital and dependent status, geographical and fleet preference, school requests, and other personal considerations play an important part in the final determination of duty assignment.

We will limit this discussion of assignments to rotational patterns of the unrestricted line (surface, submarine, aviation) and supply. These patterns, as well as those not mentioned, contain a common element. They should provide officers the opportunity to gain the proficiency to handle the responsibilities and challenges of command. Officers can only gain that proficiency through a concentrated and continuing effort to develop their knowledge and experience. Both the officers and their succession of detailing officers must be aware of that element. With few exceptions, orders involving a permanent change of station for officers are originated by the Chief of Naval Personnel. The *Naval Military Personnel Manual* (*MILPERSMAN*) contains basic policy pertaining to officer rotation. This policy concerns the varied types of duty assignments required for officers to develop their capabilities and to achieve a fulfilling career. Deviations from basic policy are provided as needed to meet problems that arise. At the present time, these deviations are required because of the increasing size of the shore establishment and the shortage of career officers.

In addition to the requirements for rotation, assignment patterns reflect the need for the following considerations:

1. Educational opportunities for overall career value or for a particular billet
2. A progression of responsibility
3. Assignment to duty with Reserve components
4. Assignment of duty with joint or allied staffs or with the Office of the Secretary of Defense (SECDEF)
5. Use of specialized training

Officers should realize they are primarily responsible for planning their own career and should therefore indicate their assignment preferences to the Bureau of Naval Personnel.

All commissioned officers complete an Officer Preference and Personal Information Card (NAVPERS 1301/1) on initial appointment and upon recall to active duty. Additionally, they should submit a new card 12 months before their projected rotation date (PRD) and whenever significant changes occur.

This card contains a wealth of information that is very useful to the detailing officer. It is construed as a current reflection of the officer's preferences, and its timely and accurate submission is extremely important.

Personal letters may be submitted if special circumstances not appropriate for inclusion on the preference card arise. The information is made a part of the detailing record and is acted upon if practicable. These letters to the detailer do not become a part of the officers's permanent record.

Officers desiring special courses of instruction, changes of duty, clarification of orders, date of release from active duty, extensions, retention in the Navy, and so forth, should indicate this by a letter forwarded through the chain of command. Such letters become a permanent part of an officer's record.

Figure 3-6, A, shows a typical professional development pattern for a surface warfare officer, and figure 3-6, B, shows the pattern for a surface nuclear officer. Officers do not normally perform the types of duties in the exact sequence shown; rather, they should gain experience in the type of tour related to the phase of development through which they are passing. For instance, if you select a career as a surface warfare officer, you may stay at sea the first 5 years because of operational requirements or personal choice or both. During this time you will strive to attain qualifications as division officer, officer of the deck, department head, and surface warfare officer. Then you may rotate ashore to staff duty or to attend the Naval Postgraduate School. Although you did not follow the development plan exactly, you will have obtained the experience and qualifications necessary to make you competitive with your year-group peers.

Figure 3-6, C and D, show an example of the professional development patterns for a submarine officer and an aviation officer. The typical professional development paths for supply corps officers and general unrestricted line (URL) officers are depicted in figure 3-6, E and F.

The career path for female officers in the restricted line and staff corps parallels that of the male officers except as constrained by law. The career progression for female aviators and surface warfare officers parallels that for their male counterparts but is restricted to the force support subcommunity.

A relatively new and important role for naval officers is a joint-duty tour. A joint-duty tour is a tour served with other branches of the armed forces. It provides the officer with a first-hand perspective of how the Navy interacts with other branches of the service.

Many billets are available for joint-duty tours in places such as the Office of the Secretary of Defense, the White House, the U.S. Space Command, and the Joint Chiefs of Staff. Every effort possible is made by detailers to send our best performers to a joint-duty tour.

Increased emphasis is being placed on the importance of such tours. All officers aspiring to flag rank should seek a joint-duty tour. Tours are usually assigned at the lieutenant commander level or above for a length of 3 years.

OFFICER PROMOTIONS

The Navy's officer corps is structured like a pyramid. Starting with a wide base of junior officers at the bottom, it rises to a relatively few flag officers near the pinnacle and ends with one officer, the Chief of Naval Operations, at the top. The officer corps structure consists of 21 competitive categories, or groups, of officers possessing similar skills, education, and training.

By law, the Navy's promotion system is vacancy-driven. Annually, promotion planners on the CNO's staff develop plans to determine the projected need (or vacancies) for officers in each grade within each of the competitive categories. The development of these plans starts the promotion system cycle, within which are three major elements: promotion opportunity, selection for promotion, and promotion.

PROMOTION OPPORTUNITY

Obviously, all officers can't reach the top of the pyramid. However, they all have the same promotion opportunity as their contemporaries in their competitive category. Promotion opportunity is the product of three factors: authorized officer strength, promotion flow point, and promotion percentage.

The Navy's authorized officer strength is the total number of officers authorized to be in the Navy at the end of each fiscal year. Since the authorized officer strength sets a limit on how many officers the Navy may have each year, it affects the number of promotions that can be made.

Promotion flow point is a predetermined number of years of commissioned service at which most officers would be promoted to the next higher grade. The first step in promotion opportunity is based on how many vacancies are expected in each grade in each competitive category. This step determines the size of the selection zone, commonly referred to as ''in zone.'' If the CNO's promotion planners foresee a need to fill 300 captain vacancies in the unrestricted line (URL) and a promotion opportunity of 50 percent is desired, then the zone must include 600 URL commanders.

SELECTION FOR PROMOTION

Annually, SECNAV convenes promotion boards for each competitive category to select active-duty officers and inactive-duty Reserve officers for promotion. They are selected for promotions to the grades of chief warrant officer (CWO-3), chief warrant officer (CWO-4), lieutenant, lieutenant commander, commander, captain, rear admiral (lower), and rear admiral (upper). Chief warrant officer (CWO-2) and ensign are commissioning grades; commanding officers determine the promotion of officers under their command to lieutenant junior grade. Officers above the grade of captain are appointed, not promoted, by the President of the United States to the grade of admiral and vice admiral.

Selection boards are composed of officers characterized by their high quality of performance, maturity, judgment, naval background, and experience. SECNAV normally assigns the senior member as president of the board. Each member subscribes to an oath to consider all eligible officers without partiality and to recommend for promotion only those officers who are best qualified.

The board cannot exceed the number of selections provided for in SECNAV's precept. For example, if 100 officers are in zone and SECNAV requires a 70 percent promotion percentage, the board cannot select more than 70 officers for promotion. It may reach ''below zone'' and choose for early promotion up to 10 percent (or 15 percent with SECDEF approval) of the total number of officers selected. If, in the above example, the board selects 10 officers from below zone, it can select only 60 officers from in zone. (Each officer normally gets two ''looks'' from below zone before entering in zone.) The board also may select ''above zone'' officers; that is, those who were considered by a promotion board in a previous year but weren't selected.

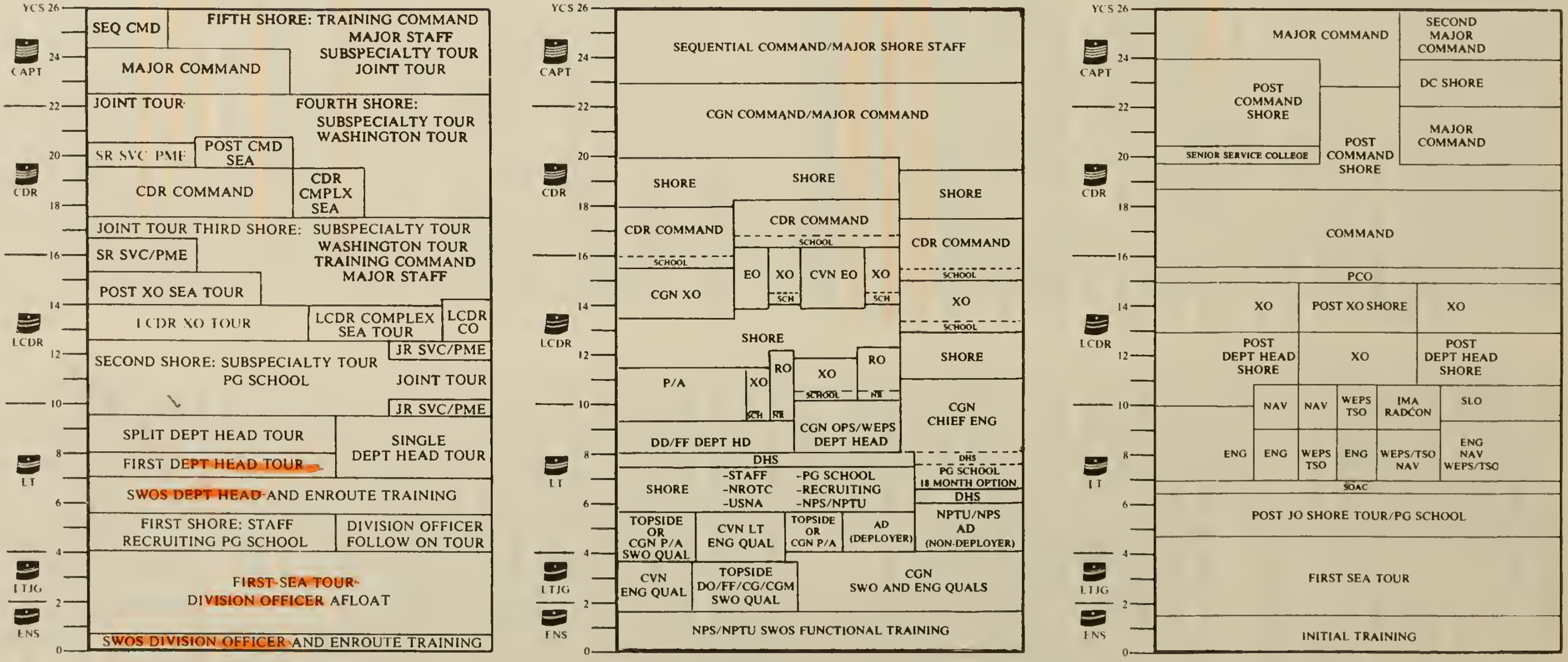
PROMOTION

Once the board concludes its deliberations and assembles its promotion list, several events must occur in the following order before an officer actually gets promoted to the next higher grade:

- Chief of Naval Personnel, Judge Advocate General, and Chief of Naval Operations review the list.

- SECNAV reviews the list.

- SECNAV publishes the list for chief warrant officer, lieutenant, lieutenant commander, commander, and captain in an ALNAV (all Navy) message. The ALNAV message lists the names of selectees in alphabetical order and shows an officer's relative seniority among selectees within each competitive category. Officers in the same competitive category maintain relative seniority throughout their careers. Changes occur only if an officer is selected for early promotion or fails to be selected for promotion.


YCS 26
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LCDR
LT
LTJG
ENS
SEQ CMD
FIFTH SHORE: TRAINING COMMAND MAJOR STAFF SUBSPECIALTY TOUR JOINT TOUR
MAJOR COMMAND
JOINT TOUR
FOURTH SHORE: SUBSPECIALTY TOUR WASHINGTON TOUR
SR SVC PME
POST CMD SEA
CDR COMMAND
CDR CMPLX SEA
JOINT TOUR THIRD SHORE: SUBSPECIALTY TOUR WASHINGTON TOUR TRAINING COMMAND MAJOR STAFF
SR SVC/PME
POST XO SEA TOUR
LCDR XO TOUR
LCDR COMPLEX SEA TOUR
LCDR CO
JR SVC/PME
SECOND SHORE: SUBSPECIALTY TOUR PG SCHOOL
JOINT TOUR
JR SVC/PME
SPLIT DEPT HEAD TOUR
FIRST DEPT HEAD TOUR
SINGLE DEPT HEAD TOUR
SWOS DEPT HEAD AND ENROUTE TRAINING
FIRST SHORE: STAFF RECRUITING PG SCHOOL
DIVISION OFFICER FOLLOW ON TOUR
FIRST SEA TOUR DIVISION OFFICER AFLOAT
SWOS DIVISION OFFICER AND ENROUTE TRAINING
SEQUENTIAL COMMAND/MAJOR SHORE STAFF
CGN COMMAND/MAJOR COMMAND
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CDR COMMAND
CDR COMMAND
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SCHOOL
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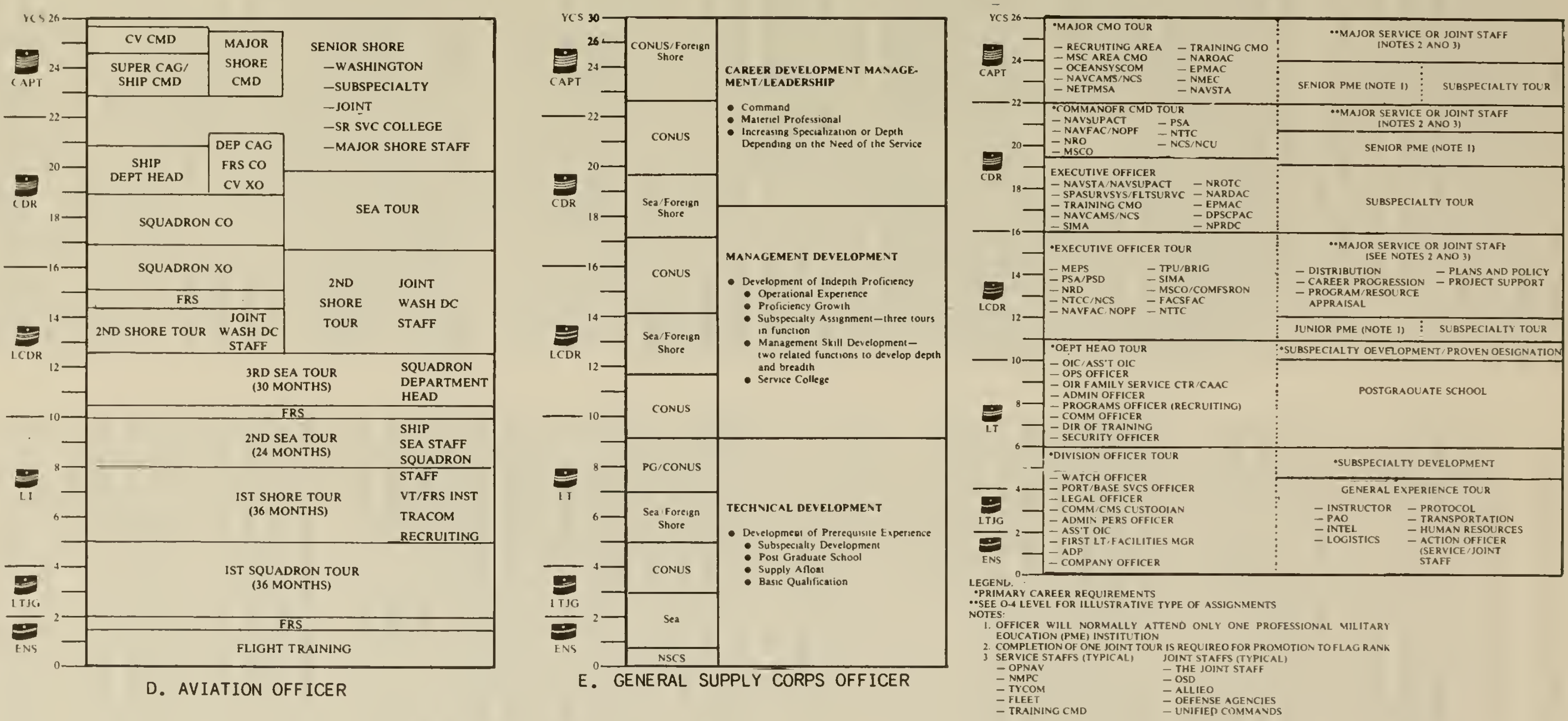
XO
SCH
SCH
CGN XO
XO
SCHOOL
SHORE
SHORE
RO
XO
RO
P/A
XO
SCHOOL
NR
SCH
NR
CGN CHIEF ENG
DD/FF DEPT HD
CGN OPS/WEPS DEPT HEAD
DHS
DHS
PG SCHOOL 18 MONTH OPTION
SHORE
-STAFF
-NROTC
-USNA
-PG SCHOOL
-RECRUITING
-NPS/NPTU
DHS
NPTU/NPS AD (NON-DEPLOYER)
TOPSIDE OR CGN P/A SWO QUAL
CVN LT ENG QUAL
TOPSIDE OR CGN P/A
AD (DEPLOYER)
CVN ENG QUAL
TOPSIDE DO/FF/CG/CGM SWO QUAL
CGN SWO AND ENG QUALS
NPS/NPTU SWOS FUNCTIONAL TRAINING
MAJOR COMMAND
SECOND MAJOR COMMAND
POST COMMAND SHORE
DC SHORE
MAJOR COMMAND
POST COMMAND SHORE
SENIOR SERVICE COLLEGE
COMMAND
PCO
XO
POST XO SHORE
XO
POST DEPT HEAD SHORE
XO
POST DEPT HEAD SHORE
NAV
NAV
WEPS TSO
IMA RADCON
SLO
ENG
ENG
WEPS TSO
ENG
WEPS/TSO NAV
ENG NAV WEPS/TSO
SOAC
POST JO SHORE TOUR/PG SCHOOL
FIRST SEA TOUR
INITIAL TRAINING

A. SURFACE WARFARE OFFICER

B. SURFACE WARFARE OFFICER NUCLEAR

C. NUCLEAR SUBMARINE OFFICER

Figure 3-6.—Officer professional development paths.



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CV CMD
SUPER CAG/ SHIP CMD
MAJOR SHORE CMD
SENIOR SHORE
—WASHINGTON
—SUBSPECIALTY
—JOINT
—SR SVC COLLEGE
—MAJOR SHORE STAFF
SHIP DEPT HEAD
DEP CAG
FRS CO
CV XO
SQUADRON CO
SEA TOUR
SQUADRON XO
FRS
2ND SHORE TOUR
JOINT WASH DC STAFF
2ND SHORE TOUR
JOINT WASH DC STAFF
3RD SEA TOUR (30 MONTHS)
SQUADRON DEPARTMENT HEAD
FRS
2ND SEA TOUR (24 MONTHS)
SHIP
SEA STAFF
SQUADRON
STAFF
1ST SHORE TOUR (36 MONTHS)
VT/FRS INST
TRACOM
RECRUITING
1ST SQUADRON TOUR (36 MONTHS)
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Sea/Foreign Shore
CONUS
Sea/Foreign Shore
CONUS
PG/CONUS
Sea/Foreign Shore
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Sea
NSCS
CAREER DEVELOPMENT MANAGEMENT/LEADERSHIP
● Command
● Materiel Professional
● Increasing Specialization or Depth Depending on the Need of the Service
MANAGEMENT DEVELOPMENT
● Development of Indepth Proficiency
● Operational Experience
● Proficiency Growth
● Subspecialty Assignment—three tours in function
● Management Skill Development—two related functions to develop depth and breadth
● Service College
TECHNICAL DEVELOPMENT
● Development of Prerequisite Experience
● Subspecialty Development
● Post Graduate School
● Supply Afloat
● Basic Qualification
*MAJOR CMO TOUR
— RECRUITING AREA
— MSC AREA CMO
— OCEANSYSCOM
— NAVCAMS/NCS
— NETPMSA
— TRAINING CMO
— NARDAC
— EPMAC
— NMEC
— NAVSTA
**MAJOR SERVICE OR JOINT STAFF (NOTES 2 AND 3)
SENIOR PME (NOTE 1)
SUBSPECIALTY TOUR
*COMMANDER CMD TOUR
— NAVSUPACT
— NAVFAC/NOPF
— NRO
— MSCO
— PSA
— NTTC
— NCS/NCU
**MAJOR SERVICE OR JOINT STAFF (NOTES 2 AND 3)
SENIOR PME (NOTE 1)
EXECUTIVE OFFICER
— NAVSTA/NAVSUPACT
— SPASURVSYS/FLTSURVC
— TRAINING CMO
— NAVCAMS/NCS
— SIMA
— NROTC
— NARDAC
— EPMAC
— DPSCPAC
— NPRDC
SUBSPECIALTY TOUR
*EXECUTIVE OFFICER TOUR
— MEPS
— PSA/PSD
— NRD
— NTCC/NCS
— NAVFAC/NOPF
— TPU/BRIG
— SIMA
— MSCO/COMFSRON
— FACSFAC
— NTTC
**MAJOR SERVICE OR JOINT STAFF (SEE NOTES 2 AND 3)
— DISTRIBUTION
— CAREER PROGRESSION
— PROGRAM/RESOURCE APPRAISAL
— PLANS AND POLICY
— PROJECT SUPPORT
JUNIOR PME (NOTE 1)
SUBSPECIALTY TOUR
*DEPT HEAD TOUR
— OIC/ASS'T OIC
— OPS OFFICER
— DIR FAMILY SERVICE CTR/CAAC
— ADMIN OFFICER
— PROGRAMS OFFICER (RECRUITING)
— COMM OFFICER
— DIR OF TRAINING
— SECURITY OFFICER
*SUBSPECIALTY DEVELOPMENT/PROVEN DESIGNATION
POSTGRADUATE SCHOOL
*DIVISION OFFICER TOUR
— WATCH OFFICER
— PORT/BASE SVCS OFFICER
— LEGAL OFFICER
— COMM/CMS CUSTODIAN
— ADMIN PERS OFFICER
— ASS'T OIC
— FIRST LT/FACILITIES MGR
— ADP
— COMPANY OFFICER
*SUBSPECIALTY DEVELOPMENT
GENERAL EXPERIENCE TOUR
— INSTRUCTOR
— PAO
— INTEL
— LOGISTICS
— PROTOCOL
— TRANSPORTATION
— HUMAN RESOURCES
— ACTION OFFICER (SERVICE/JOINT STAFF

D. AVIATION OFFICER

E. GENERAL SUPPLY CORPS OFFICER

LEGEND:
*PRIMARY CAREER REQUIREMENTS
**SEE O-4 LEVEL FOR ILLUSTRATIVE TYPE OF ASSIGNMENTS

NOTES:
1. OFFICER WILL NORMALLY ATTEND ONLY ONE PROFESSIONAL MILITARY EDUCATION (PME) INSTITUTION
2. COMPLETION OF ONE JOINT TOUR IS REQUIRED FOR PROMOTION TO FLAG RANK
3 SERVICE STAFFS (TYPICAL)
   - — OPNAV
   - — NMPC
   - — TYCOM
   - — FLEET
   - — TRAINING CMD

   JOINT STAFFS (TYPICAL)
   - — THE JOINT STAFF
   - — OSD
   - — ALLIED
   - — DEFENSE AGENCIES
   - — UNIFIED COMMANDS

F. GENERAL URL CAREER PATH

Figure 3-6.—Officer professional development paths—Continued.

- Secretary of Defense signs the list.
- President of the United States signs the list.
- SECNAV publishes the list for rear admiral (lower) and rear admiral (upper) in an ALNAV message.
- U.S. Senate confirms the list. Lieutenant (active Reserve), lieutenant commander (Reserve), and chief warrant officer selectees do not require Senate confirmation.
- SECNAV authorizes promotions through ALNAV messages as vacancies occur. This event normally occurs at monthly intervals in the fiscal year following the fiscal year of selection. Assuming officers maintain all qualifications, they will receive the first paycheck for the next higher grade soon after their name appears on this ALNAV message.

PAY AND ALLOWANCES

Two general statements can safely be made about military pay. Few, if any, people become wealthy on the basis of their military pay alone. On the other hand, if budgeted wisely, military pay provides a comfortable standard of living.

From a career standpoint, you should keep certain factors in mind when making dollar-for-dollar comparisons of military and civilian pay. Military pay is guaranteed and predictable. The current trend in military pay is upward. Periods of business recession do not adversely affect military pay. A portion of the total military pay is not taxable, and provisions are made for additional pay for various forms of special or hazardous duty.

Many publications contain descriptions of the entire matter of military pay. Our purpose here is to give an overview and to define and briefly discuss elements that compose the total pay structure.

Commissioned officers and warrant officers are assigned by law to paygrades on the basis of the grades in which they are serving, whether under temporary or permanent appointment. Enlisted personnel, on the other hand, are assigned to paygrades by the Secretary of the Navy.

BASIC, SPECIAL, AND INCENTIVE PAY

Basic pay, which accrues for all personnel on the basis of paygrade and cumulative years of service, is the major portion of a person's total pay. The cumulative years of service may have been in any branch of the armed services or a Reserve component.

Special pay is added compensation received for performing special duties. For officers, ''special duty'' is limited to medical and dental billets and duties involving diving and coming under hostile fire. Special pay for doctors and dentists is prorated on the number of years they have been on active duty (although certain medical officers serving in critical specialties also receive a special continuation pay). Special pay for hostile fire and diving involves flat monthly sums regardless of grade or years of service. As a matter of interest, special pay for hostile fire is not payable in time of war declared by Congress.

Incentive pay, prorated according to grade and years of service, is additional pay received for performing hazardous duty. Included in this category are flight pay for both crew and non-crew members; submarine pay; and extra pay received for parachute, aircraft carrier flight deck, explosive demolition, experimental stress, or leprosarium duty.

ALLOWANCES

An allowance is a contribution of money, or its equivalent ''in kind,'' to help meet expenses incurred as the result of membership in the naval service. Allowances are not taxable.

Basic Allowance for Quarters (BAQ)

The purpose of basic allowance for quarters (BAQ) is to help members pay the cost of obtaining suitable living quarters when government quarters are unavailable or not assigned.

BAQ is divided into two categories: BAQ for members without dependents and BAQ for members with dependents. The rates payable vary according to your grade.

If you live in government quarters, you forfeit your BAQ in lieu of rent.

Variable Housing Allowance (VHA)

Variable housing allowance (VHA) is paid in addition to BAQ to help members defray the cost of living in a particular area. VHA is based on your grade and geographic location. Surveys are conducted periodically to determine the amount of VHA for each geographic region of the United States. You forfeit VHA, as well as BAQ, if you reside in government quarters.

Basic Allowance for Subsistence (BAS)

Since all officers must pay their own mess bills, they are entitled to a monthly allowance for subsistence without regard to grade or dependency status. All officers, whether on board ship or ashore, whether married or single, receive a basic allowance for subsistence (BAS).

Family Separation Allowance (FSA)

Members assigned to a deployable unit are paid a family separation allowance (FSA) of $2 per day when they have been away from their home port in excess of 30 days. That allowance continues until the member's unit returns to the home port.

Dislocation Allowance (DLA)

Personnel with dependents are entitled to a dislocation allowance (DLA) upon a permanent change of station. It is paid to help defray the abnormal expenses incurred in such a move. The amount is equal to one month's basic allowance for quarters to which the person is entitled.

Miscellaneous

Additional allowances are paid for things such as initial uniform allowance, mileage expenses for travel under orders, and per diem payments for temporary additional duty. Their specifications differ, but the basic idea is the same: a temporary payment to help defray expenses of an unusual nature arising from official duty.

BENEFITS

From the time naval officers begin active duty, they are entitled to many valuable benefits. Those benefits considered traditional include commissary privileges, various assistance programs, and retirement. Benefits are estimated to add about 15 percent to a an officer's pay.

MEDICAL AND DENTAL CARE

Medical and dental care are available to all members of the armed services on active duty. Regardless of where members are stationed, they have immediate access to full and complete care through the facilities of all the armed forces and the Public Health Service.

The Navy naturally is vitally concerned with the health of its members. It establishes physical qualifications for procurement and ensures the maintenance of these standards throughout the member's entire period of active service. Additional physical qualifications are required for aviation, submarine duty, and other special programs. The rigors of a career in the Navy cannot be withstood by a person who is not in good physical condition. Should a person become injured or ill while on active duty, however, restoring the person to health as soon as possible is obviously in the person's best interest as well as the Navy's.

Regulations governing medical care for retirees and dependents are contained in SECNAV Instruction 6320.8D, which represents a joint statement by the armed forces, Coast Guard, and Public Health Service. The regulations prescribe policies and procedures for administering the Uniformed Services Health Benefits Program (previously known as Medicare) as authorized by Title 10, U.S. Code, for all the uniformed services.

The law provides a uniform level of care, through either military or civilian facilities, for (1) retired personnel, (2) dependents of both active-duty and retired members, and (3) dependents of deceased members who died while on active duty or retired. Retired persons are entitled to the same health benefits in uniformed services facilities as active-duty members, except retirees are subject to space availability and staff capabilities. (The Veterans Administration, however, is responsible for the hospitalization of persons retired because of a physical disability or of a service-connected disease or injury.) Exceptions to entitlement of medical care for dependents, which are few, include dental care, domiciliary or custodial care, prosthetic devices, hearing aids, spectacles, and orthopedic footwear. Medical services at uniformed services facilities may be provided to dependents subject to space availability and the capabilities of the professional staff.

In general, retirees and all dependents should use uniformed services medical facilities if they are adequate and available. An integral part of the Health Benefits Program, however, is the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). This aspect of medical care is of particular benefit to eligible beneficiaries residing in areas where service medical facilities are unavailable or unable to accommodate them. CHAMPUS authorizes a wide range of civilian health care services, with a significant share of the cost being paid by the government.

Participation in CHAMPUS by sources of care is entirely voluntary. Beneficiaries desiring treatment or hospitalization under CHAMPUS must locate a ''participating'' physician or another source of health care willing to provide authorized care to the beneficiary. The source must be willing, after payment of a stipulated amount by the beneficiary, to submit a claim to the proper government fiscal agent for payment of the remainder of the fee. The source must also be willing to accept the amount the government determines to be allowable for the services.

Inherent in CHAMPUS is a ''reasonable fee'' concept, meaning the government will pay only those charges it determines to be reasonable. If a fee charged is considered unreasonable, the difference between the fee for treatment and the amount paid under CHAMPUS will have to be paid by the beneficiary. The reasonable fee concept can be costly if not understood. Some beneficiaries erroneously think the government will pay the full charge made by any civilian source for authorized health care. If treated by a nonparticipating medical caretaker, the patient must pay the bill for any extra money charged. The patient should always ask at the time of the initial visit whether the physician or hospital participates in CHAMPUS and will accept (after the patient's contribution) the government fee as payment in full. Claims submitted to the government by participating parties include an agreement to accept as full payment the amount authorized as payable under the program.

Except for emergency care, hospitals that practice discrimination in the admission or treatment of patients on the basis of race, color, or national origin may not participate in CHAMPUS. In other words, the government won't pay for their services, and beneficiaries receiving treatment at those institutions will foot the entire bill.

Dental care is provided to all military personnel and in some cases to their dependents as well. Most dental care for dependents is not provided by the military. Dental insurance may be purchased by military personnel for their dependents through a group policy called Delta Dental Plan (DDP). DDP is a voluntary program of preventive services and basic dental care. The cost of that insurance is presently under $10 per month and provides coverage for all your dependents.

COMMISSARY AND EXCHANGE PRIVILEGES

One feature of Navy life a service dependent will especially appreciate is the privilege of purchasing food, household goods, and personal items at a reasonable cost through commissaries and service exchanges. These government facilities permit service personnel and their dependents to purchase basic commodities at fair prices.

In overseas branches of those activities, personnel and their families may buy foodstuffs and exchange items that otherwise might not be available. Many commodities ordinarily obtainable overseas through other means carry a much higher price tag. In addition, particularly for foreign goods or unfamiliar brands, exchanges and commissaries ensure good quality. Their buyers are experts; most of us are not. Exchanges and commissaries base their prices on the same price scale used by their stateside counterparts.

DEPENDENT SCHOOLING

Elementary and secondary schooling are available overseas at government expense for eligible minor dependents of Department of Defense (military and civilian) personnel. To be eligible, a dependent must be between the ages of 5 and 20; must be authorized by competent authority to be in the overseas area; and must be the unmarried child, stepchild, legally adopted child, or legal ward of the Department of Defense (DOD) member stationed overseas.

Schooling may be provided by DOD schools; tuition-fee schools (schools under local government, private, church, or cooperative administration); and correspondence courses. The type of schooling provided depends on the number of eligible dependents in an area and the availability of private schools that use English as the language of instruction.

Schools operated by DOD are designed to meet the special problems created by a change of duty station in midyear. Teachers for these schools must meet U.S. qualifications, must be U.S. citizens, and usually are recruited from the United

States. Spouses who meet necessary qualifications may be hired locally for employment in service-operated schools.

Above the high school level, children of naval personnel are eligible for scholarship assistance at a number of colleges and universities in the United States.

OFFICERS' MESS

A commissioned officers' mess provides social and recreational facilities, meals, and refreshments to commissioned and chief warrant officers. Where facilities permit, privileges of the mess frequently are extended to officers of the other armed services and Reserve officers, as well as to officers' dependents. At large activities a mess may consist of dining rooms; snack bars; cocktail lounges; lounge areas; rooms for private parties; and in some cases swimming pools, golf courses, and tennis courts.

ASSISTANCE PROGRAMS

To promote and preserve peace of mind for its officers and their dependents, the Navy offers a number of special assistance programs, some of which have substantial cash value.

Family Services Centers

At many Navy shore installations in the United States, particularly in areas of fleet concentration, Family Services Centers are established to assist new arrivals in obtaining personal services they may need.

The centers ensure newcomers to the area receive a personal welcome, either by a home call or at the center. The new arrival is usually issued a brochure that includes information such as the following:

1. A map of the area
2. A letter of welcome
3. An area directory
4. A base information guide
5. Data on available medical care, Navy Relief, Red Cross, churches, commissaries and exchanges, educational facilities, base facilities, and so on

In addition, centers will refer members and their dependents to the proper facility to obtain needed information on, among other things, passport applications, voting, insurance, career counseling, base and off-base housing, and financial assistance. They may provide hospitality kits containing necessary items of household items new arrivals can borrow until their household goods are delivered.

For the benefit of attached personnel receiving orders, centers maintain an inventory of brochures containing information on many overseas and continental United States Navy installations.

Legal Assistance

Personnel may obtain confidential guidance, without cost, from legal assistance officers at most duty stations. Advice rendered generally is on legal, personal, and property problems, or the drafting of legal documents. Assistance does not include representation in civil court.

Casualty Assistance Calls Program

If a Navy person dies on active duty, the family is visited promptly by a casualty assistance calls officer (CACO). The CACO offers the dependents help in obtaining rights, benefits, and privileges to which they are entitled and advises on funeral arrangements and financial assistance, if needed. The visit by the CACO is automatic; the deceased's family need not initiate the action.

Navy Relief Society

Known as the ''Navy's own organization to take care of its own,'' the Navy Relief Society is privately supported, primarily by means of annual requests for contributions. At the service of Navy and Marine personnel and dependents who need emergency help, it limits itself, generally, to nonrecurring situations of distress involving clothing, medical care, burial, and the like. It cannot underwrite permanent need. The society may make interest-free loans, outright grants, or a combination of the two.

Navy Mutual Aid Association

The aim of the nonprofit Mutual Aid Association is to provide life insurance at cost and immediate aid to dependents of deceased officers. Upon notice of a member's death, this association wires or cables a $2,000 cash payment to the dependents of the deceased member anywhere in the world. The total life insurance coverage is $400,000 available in $20,000 increments to association members. Membership is available to active-duty and Reserve officer and enlisted personnel under 62 years of age of the Navy, Marine Corps, Public Health Service, and National Oceanic and Atmospheric Administration. Other services include quick loans, central depository for documents, and assistance to the family in obtaining all rights and benefits to which entitled. For further information about the association benefits, you may call 1-800-628-6011 or write to the following address:

Navy Mutual Aid Association
Arlington Annex, Room G070
Washington, DC 20370

Navy Chaplains

In addition to religious duties, the chaplain is available for personal, spiritual, and moral guidance, and for performance of marriages and funeral ceremonies.

RECREATION AND SPORTS PROGRAMS

Commanding officers make every attempt to provide recreation and sports programs designed to meet varied interests and desires and adapted to the needs of personnel and the facilities available.

Recreation

Most naval stations provide motion picture entertainment, well-stocked libraries, hobby craft shops, station newspapers, dances, parties, and shows. In larger metropolitan areas, theater, concert, and sporting event tickets may be offered to service personnel at reduced prices and in many cases free of charge.

Sports

Sports programs include organized competitions at intramural, intradistrict, intra-area, and intratype (or intertype) levels. Games and matches between fleet and shore activities are stressed, and interservice championships are held in many instances. All-Navy sports championships are a natural outgrowth of the extensive intra-intermural programs.

Outstanding Navy athletes who believe they possess the necessary capability and potential may apply to the Chief of Naval Personnel for permission to train for and participate in Pan American, Olympic, and other international sports competitions.

RETIREMENT

Retirement benefits available at the conclusion of a Navy career are, in many respects, superior to similar plans in civilian life. On a day-to-day basis, the most important factor is that the persons to whom the benefits accrue pay nothing toward their accumulation. Personnel are encouraged to accumulate personal savings or investments to supplement their retirement income. However, if they fail to do so, they may still look forward to having enough income during their remaining years from retirement pay and subsidiary benefits for the necessities of life.

The Navy offers three types of retirement: voluntary, statutory, and retirement for physical disability.

Voluntary Retirement

Regular officers are eligible for voluntary retirement after completing 20 years of active service. Reserve officers (inactive duty) are entitled to retired pay benefits after reaching age 60 provided they have completed 20 years of satisfactory federal service (of which the last 8 years were in a Reserve component).

Application for retirement is normally instituted by the officer desiring retirement, but acceptance rests with the Secretary of the Navy. The full administrative process involved in retirement is too lengthy for the purposes of this discussion, but one aspect should be emphasized. A physical examination is a very important part of the retirement procedure. Discovery of any defects that will alter the retirement status will be acted upon. However, once the processing is completed, that retired status cannot be altered except by reason of disability incurred as a result of being called back to active duty.

Statutory (Involuntary) Retirement

To ensure youth and vigor in responsible positions and to prevent stagnation in grade, the Navy has laws that require the retirement of permanent officers and warrant officers at certain times. They are required to retire after reaching a certain age, after failing selection for promotion or continuation, after completion of a certain number of years of service, or a combination of these elements. A compilation of statutory requirements for permanent Regular officers may be found in the *Naval Military Personnel Manual*, NAVPERS 15560A. Statutory requirements require no application from the officer concerned.

Disability Retirement

Members of the armed services who retire because of physical disability may receive certain tax benefits. If an officer retires for other than physical reasons, the entire amount of retired pay is taxable. If an officer is retired for physical reasons, however, and elects retired pay on the basis of percentage of disability, such pay is tax exempt.

RETIREMENT BENEFITS

In addition to retirement pay, many other benefits are offered upon retirement. The following section describes some of these added bonuses.

Social Security Benefits

Active-duty military personnel are placed under full Social Security coverage immediately upon entering service. Credits based on military service are not lost regardless of retirement or release from the service. A service person may receive retirement pay or any form of compensation or pension from the Veterans Administration plus Social Security insurance payments at the age of 65 (or optionally at age 62). If totally disabled a person may apply for Social Security benefits immediately.

Survivor Benefit Plan (SBP)

This program assures financial protection for survivors of retired uniformed service members. The Survivor Benefit Plan (SBP) provides an income of up to 55 percent of a retiree's pay to the retiree's widow or widower and dependent children.

In the past, surviving members of a retiree's family often found themselves with little or no income following the retiree's death. SBP fills that gap in the area of service benefits. Until passage of the SBP law, the retired pay of retired members of the uniformed services ended with their death, unless they had elected voluntarily to participate in the Retired Serviceman's Family Protection Plan (RSFPP)—known originally as the Contingency Option Act.

Under the Survivor Benefit Plan, members are automatically enrolled in the plan with maximum coverage when they retire if they have spouses or dependent children, unless they elect a lesser coverage or decline participation before becoming entitled to retired pay. The retiree must elect the lesser coverage at least 30 days before the first day for which he or she can receive retired pay.

Since the federal government pays a substantial part of the SBP cost, retirees give up only a small part of their retired pay to provide maximum coverage for their dependents.

Miscellaneous Benefits of Retirement

In time of peace retired officers may not be ordered to active duty without their consent. Although they may be ordered to active duty in time of war or national emergency, they are not required to hold themselves in readiness for active service.

Officers may use their military title in commercial enterprises provided the use of that title does not bring discredit to the Navy Department or the Department of Defense. Retirees are entitled to wear the uniform of the grade held on the retired list when the wearing of the uniform is appropriate.

Retired officers and their dependents are entitled for life to the same medical and dental services provided their active-duty counterparts, provided funding, staffing, and facilities are available. They are also entitled for life to the privilege of making purchases in commissaries, exchanges, and ship's service stores.

Retired, as well as active-duty, personnel should remember they may have acquired veteran status and are thus entitled to many benefits available from the Veterans Administration (VA) and from the state in which they reside. These may include employment counseling, home and farm loans, unemployment compensation, burial rights, and VA benefits for veterans with disabilities.

SURVIVOR'S BENEFITS

Younger people usually are so busy living and making a living that they put off systematic planning for their families until they approach middle age and maximum earnings. Before that time, in most cases, they cannot afford adequate protection anyhow. If they choose a Navy career, that is one worry they can forget. Provision for their dependents begins the moment they enter the naval service and continues into retirement.

Financial security for dependents of deceased naval officers is guaranteed under the Serviceman's and Veteran's Survivor Benefits Act, which places all members of the armed forces under Social Security.

The Survivor Benefits Act is a package deal for long-range security of service families. It combines full and permanent Social Security eligibility with increased death and indemnity benefits paid by the VA to dependents of persons who die as a result of military service. The latter benefits are separate from Social Security and accrue whether death occurs during peace or war, as long as it results from a service-connected cause. When sums paid by both sources are added, they amount to a monthly income for your family that only those in the most fortunate financial circumstances could provide in civilian life. That income can be augmented by a retirement annuity made possible through the Survivor Benefit Plan.

In addition to a liberal schedule of death gratuities and monthly compensation payments, the act provides for a considerable number of miscellaneous benefits. These include, for example, shipment of household effects, dependents' transportation, homestead privileges for establishing a home on government land, federal employment privileges, commissary and exchange privileges, and Medicare.

If a naval officer dies while in active service or of service-connected causes within 120 days after release, the designated survivor also is entitled to the following benefits:

1. Navy death gratuity equal to one-half of a year's pay. The amount may not be less than $800. It is paid as promptly as possible and is not taxable.

2. Payment up to $2,140 toward private funeral and burial expenses for services not provided by the government or for interment at no expense in any open national cemetery. A headstone for the deceased is furnished in either case.

In addition to other survivor benefits, all persons on active duty in excess of 30 days are covered by a $50,000 Servicemen's Group Life Insurance policy at a cost to the service member of only $4 per month. Although service members will find this coverage is extremely inexpensive, they may reduce or terminate it if requested in writing. A life insurance program is an important factor for any officer to consider, especially if one has family responsibilities.

SUMMARY

Navy life is a demanding life. It calls for complete loyalty and dedication and for a great measure of selflessness. It involves pleasant assignments and those that are not so pleasant; but every billet you fill can be an opportunity for gain for the Navy, your shipmates, and yourself. A person must be mature and observant to always see these opportunities, but they are there. At times it can be a dangerous life. Danger is inherent in an armed service and particularly a service with worldwide commitments. But for the person with a desire to serve country and oneself in a variety of interesting and challenging ways, it is a stimulating, satisfying way of life.

The family of the naval officer is a vital part of the Navy team. Far more so than in civilian life, a Navy spouse has the opportunity to further the officer's career. The spouse's patience, understanding, and acceptance of additional family responsibility contribute immeasurably to the officer's peace of mind. Because of the responsibilities of officers in the world's foremost Navy, their peace of mind is essential to their best performance of duty. Therefore, the welfare of their families, leading to happy home lives, plays a major role toward the success of the Navy.

The Navy recognizes the importance of the role played by the officer's family. It also realizes service families can best do their part only when they are taken care of and kept informed of the Navy's functions and missions to the fullest possible extent. Families should be encouraged, therefore, to learn about the great responsibility that falls upon naval officers and realize how much they can contribute toward achieving the Navy's goals.

The very nature of naval officers' occupations gives their family a range of experience unparalleled by their civilian counterparts in the world today. Inherently this range gives rise to equally unparalleled social and cultural opportunities for entire families. How people profit from these opportunities is up to them; the doorway is there and it is invitingly open.

Because of their mutual importance to the Navy, officers and their families have every right to expect the Navy to work for their benefit and interest—and the Navy will always do that. In return the Navy counts on every service family to do its part. A family does its part by taking advantage of the benefits offered and cooperating to contribute toward the betterment of the naval organization and the fulfillment of its mission.

REFERENCES

"Officer Promotions," *All Hands* Number 864 (March 1989): 43-47.

Useful Information for Newly Commissioned Officers, NAVEDTRA 10802-AL, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1989.

SUGGESTED READING

Mack, W. P., and T. D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, 1983.

Naval Military Personnel Manual (*MILPERSMAN*), NAVPERS 15560A, Naval Military Personnel Command, Washington, D.C., 1987.

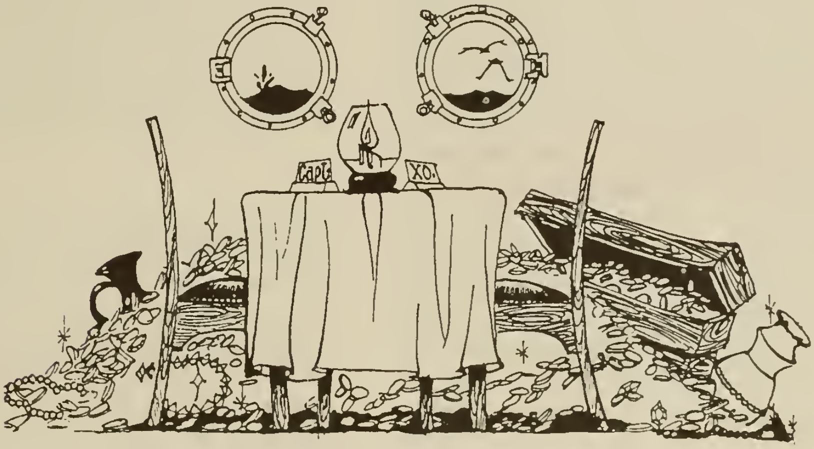
Navy Pay and Personnel Procedures Manual (*PAYPERSMAN*), NAVSO P-3050, Navy Department, Office of the Comptroller, Naval Military Personnel Command, Washington, D.C., 1973.

U.S. Department of Defense, *The Armed Forces Officer*, DOD Gen-36A, American Forces Information Services, Washington, D.C., 1988.

WARDROOM

ABOARD THE 18TH CENTURY BRITISH SHIPS THERE WAS A COMPARTMENT CALLED THE WARDROBE, USED FOR STORING BOOTY TAKEN AT SEA. THE OFFICERS' MESS AND STATEROOMS WERE SITUATED NEARBY, SO WHEN THE WARDROBE WAS EMPTY THEY CONGREGATED THERE TO TAKE THEIR MEALS AND PASS THE TIME.

WHEN THE DAYS OF SWASHBUCKLING AND PIRATING HAD ENDED, THE WARDROBE WAS USED EXCLUSIVELY AS AN OFFICERS' MESS AND LOUNGE. HAVING BEEN ELEVATED FROM A CLOSET TO A ROOM, IT WAS CALLED THE WARDROOM.



CHAPTER 4

MILITARY DUTIES OF THE NAVAL OFFICER

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the authority of naval officers.
2. Identify the duties and responsibilities of the officer of the deck underway.
3. Identify the duties and responsibilities of the combat information center watch officer.
4. Identify the duties and responsibilities of the engineering officer of the watch.
5. Identify the duties and responsibilities of the command duty officer.
6. Identify the duties and responsibilities of the officer of the deck in port.
7. Identify the duties and responsibilities of the division officer.

The duties of the naval officer are many. They are often complex, dealing with technical areas or personnel problems. One of your challenges as a naval officer is to carry out successfully all the duties you are assigned in an efficient manner. To achieve this task requires much forethought. Although your duties remain somewhat consistent, the conditions vary on a day-to-day basis; sometimes they even change during the course of the day.

After your entry-level training, your first duty assignment will probably be as a division officer. Division officers are assigned by the commanding officer to manage a division of the unit's organization. *Standard Organization and Regulations of the U.S. Navy*, OPNAVINST 3120.32B, generally referred to as the *SORN*, outlines the division officer's duties. Note, don't confuse the *SORN* with the *SORM*. The *SORM* is the *Standard Organization and Regulations Manual* for your individual command. We will look at some of the division officer's duties later in this chapter, but first let's look at your authority and responsibility as a naval officer.

AUTHORITY AND RESPONSIBILITY

When you accept your commission as a naval officer, you assume many responsibilities. Your peers in the civilian sector would have to work several years into their careers before assuming such responsibilities. To handle these responsibilities, you need the authority to carry them out. Authority within the Navy means seniors have the legal right to require subordinates to obey their lawful orders. Your authority can be either general or organizational. You use general authority to fulfill the duties and responsibilities of your assignment or specific billet within an organization. By virtue of your commission, you are granted the organizational authority to perform your duties and responsibilities based on *United States Navy Regulations, 1990*.

NAVY REGULATIONS

Navy Regulations outlines the authority of naval personnel in great detail. (Chapter 10 of *Navy Regulations*, which has several articles dealing with authority, will be covered more thoroughly in chapter 6 of this text.) For the purpose of explanation and brevity, article 1012 best describes the authority of naval officers as follows:

> All officers of the naval service, of whatever designation or corps, shall have all the necessary authority for the performance of their duties and shall be obeyed by all persons, of whatever designation or corps, who are, in accordance with these regulations and orders from competent authority, subordinate to them.

Chapter 11 of *Navy Regulations* explains some of your duties and responsibilities. *SORN* also explains your duties and responsibilities, but it explains them more in detail than in general terms.

STANDARD ORGANIZATION AND REGULATIONS OF THE U.S. NAVY (SORN)

SORN applies to all members of the U.S. Navy. It lists the duties and responsibilities for almost every billet and watch station in the Navy. It also gives us regulations on which to base our unit and watch organizations.

No portion of the *SORN* is intended to contradict or supersede any portion of *Navy Regulations*. Many articles in the *SORN* and *Navy Regulations* appear to say the same thing; but they are separate directives, and both apply to all members of the naval service.

In addition to your primary duties, you may be assigned a number of collateral duties. Guidance on the performance of collateral duties can also be found in the *SORN*.

Do not rely solely on *Navy Regulations* and *SORN* as your only sources for guidance in performing your duties. Use other directives and instructions that further amplify what you are required to do, such as those written by your command.

WATCH STANDING

As a naval officer, whether you are assigned ashore or afloat, a portion of your duties will involve watch standing. Although many watches are assigned to personnel assigned to shore duty, the primary scope of this text deals with the watch organization of an afloat command.

SORN defines a watch as any period during which an individual is assigned specific, detailed responsibilities on a recurring basis. Watches on board ships are set both in port and underway. Commanding officers establish the watches required for the safety, security, and proper operation of their command.

Although ships have numerous watches, those we discuss in the following paragraphs are the primary control watches for a ship underway.

OFFICER OF THE DECK UNDERWAY

One of the most important watches on a ship at sea is that of the officer of the deck (OOD). The commanding officer designates the assignment of the OOD in writing. The OOD takes charge of the safe and proper operation of the ship.

The duties, responsibilities, and authority of the OOD include the following:

- Being aware of the tactical situation and geographic factors that may affect safe navigation and taking action to avoid the danger of grounding or collision
- Issuing necessary orders to the helm and main engine control to avoid danger, to take or keep an assigned station, and to change course and speed following the orders of proper authority
- Making all required reports to the commanding officer
- Supervising the personnel on watch on the bridge, ensuring all deck log entries are made, and signing the log at the end of the watch
- Being aware of the status of the engineering plant and keeping the engineering officer of the watch advised of power requirements
- Carrying out the routine of the ship as published in the plan of the day and other ship's directives
- Supervising and conducting on-the-job training for the junior officer of the watch (JOOW), the junior officer of the deck (JOOD), and enlisted personnel of the bridge watch

Although we have listed only some of the OOD's duties and responsibilities, those listed show the enormous responsibility involved. When an individual is designated OOD (underway), the commanding officer has placed special trust and confidence in that person's capabilities.

Although the OOD is responsible for the deck and the conn, the OOD normally delegates the conn to the JOOD. Just what are the deck and the conn? The deck refers to the OOD's watch; it means the OOD is in charge of all deck functions and supervises the maneuvers of the ship. The conn means the control, or direction by rudder and engine orders, of the movements of a ship. The JOOD is in training for OOD and must, therefore, learn how to conn the ship. Even when delegating the conn, the OOD still remains responsible for the actions of the conning officer.

A matter of extreme importance is that the bridge watch team know who has the deck and the conn. Only one person at a time can conn the ship, and that person must be known by the watch team. For this reason, when one officer transfers the conn to another, that officer announces this transfer in the pilot house. Normally, the conning officer being relieved announces, "This is [Rank or Rate and name of the officer being relieved]. [Rank or rate and name of relieving officer] has the conn." The officer assuming the conn then announces, "This is [Rank or Rate and name]. I have the conn." Each member of the watch team acknowledges this report. Customarily the helmsman and lee helmsman report the course being steered, the magnetic-compass course, and the speed and rpm indicated. A similar announcement is also made for relief of the deck.

COMBAT INFORMATION CENTER WATCH OFFICER (CICWO)

The officer who supervises the operation of the combat information center (CIC) is the CIC watch officer (CICWO). The CICWO acts as a representative of the CIC officer. The duties of the CICWO include the following:

- Supervising personnel on watch in CIC, ensuring air, surface, and submarine contacts are detected and reported within the capabilities of the equipment
- Keeping the OOD advised of recommended procedures for maintaining station, avoiding navigational hazards and collisions, and speed or course changes necessary to change or regain station
- Keeping the OOD informed concerning all radars in operation and those under repair
- Ensuring all CIC logs are properly maintained for the duration of the watch
- Supervising and evaluating the on-the-job training of enlisted CIC personnel on watch, including the ship's lookouts

The CICWO normally makes reports to the OOD. If a tactical action officer (TAO) is assigned to the watch bill, the CICWO reports to the TAO on matters of tactical employment and defense.

Tactical Action Officer (TAO)

The tactical action officer (TAO) acts as the commanding officer's representative concerning the tactical employment and defense of the unit. The TAO is responsible for the safe and efficient operations of the combat systems and for any other duties prescribed by the commanding officer. The TAO, who is not assigned to the watch bill during normal peacetime steaming (Condition IV), stands watch in CIC.

When so authorized by the commanding officer, the TAO may direct the OOD to take tactical actions required to fight or defend the unit. The TAO and the OOD have to work as a team. With the TAO in CIC and the OOD on the bridge, the TAO's direction could possibly place the ship in danger. In these cases the OOD should decline the direction and immediately advise the CO.

Communications Watch Officer

Another important position in the underway watch organization is the communications watch officer. The communications watch officer is responsible for receiving all incoming message traffic and ensuring it is properly routed. The communications watch officer sends all operational messages to the CIC watch officer. The communications watch officer is also responsible for transmitting the messages the unit needs to send and ensuring all radio frequencies are properly set. A ship must be able to communicate to accomplish its mission.

ENGINEERING OFFICER OF THE WATCH (EOOW)

The engineering officer of the watch (EOOW) is in charge of the safe and proper operation of the ship's engineering plant. The EOOW has to be thoroughly familiar with the ship's engineering systems, including their capabilities and limitations. If a casualty occurs to any piece of equipment in the engineering plant, the EOOW must know the proper procedures to follow to control the casualty. Some of the duties and responsibilities of the EOOW are as follows:

- Supervising personnel on watch in the Engineering Department to ensure they operate machinery according to instructions; ensuring personnel maintain required logs, properly man machinery and controls, and carry out all required inspections and safety precautions
- Ensuring personnel promptly and properly execute all orders from the OOD concerning the speed and direction of rotation of the main engines
- Immediately executing all emergency orders concerning the speed and direction of rotation of the screws
- Immediately informing the OOD and the engineer officer of any casualty that would prevent the execution of engine speed orders or would affect the operational capability of the ship
- Keeping informed of the power requirements for operations; ensuring the propulsion and auxiliary machinery combination effectively meets operational requirements
- Supervising and coordinating on-the-job training for engineering personnel on watch

The EOOW is the OOD's link to the engineering plant. They work together and should keep each other informed. The OOD should inform the EOOW as soon as possible when changes in speed are anticipated. For example, to increase speed substantially to go to an assigned station, the OOD should notify the EOOW of the anticipated speed required. This gives the EOOW time to start additional machinery needed to meet the increased speed requirement.

COMMAND DUTY OFFICER (CDO)

The command duty officer (CDO) is the direct representative of the commanding officer. Some large ships have a CDO assigned underway, but in this text we will discuss the CDO in port.

The commanding officer designates an officer, or in some cases a petty officer, as the CDO. The CDO carries out the routine of the unit in port and supervises the OOD (in port) in the safety and general duties of the unit. The CDO carries out the duties of the executive officer (XO) during the XO's temporary absence. Some of the duties and responsibilities of the CDO are as follows:

- Advising and, if necessary, directing the OOD in the general duties of the unit
- Keeping informed of the unit's position, mooring lines or ground tackle in use, status of the engineering plant, and all other matters affecting the safety and security of the unit
- Relieving the OOD when necessary for the safety of the unit, and informing the commanding officer when such action is taken
- In the absence of the executive officer, receiving the eight-o'clock reports from the department duty officers and reporting the condition of the unit to the commanding officer
- Mustering, drilling, and inspecting duty emergency parties

Normally, the CDO stands a 24-hour watch. Most other watches are only for a 4-hour period. The CDO, being the direct representative of the commanding officer, has full and complete authority over the unit. All personnel, regardless of rate or rank, are subordinate to the CDO.

OFFICER OF THE DECK (IN PORT)

The OOD (in port) is the officer or petty officer on watch designated by the commanding officer to be in charge of the unit. The OOD's primary responsibility is the safety and proper operation of the unit. The OOD's other duties and responsibilities include the following:

- Keeping continually informed of the unit's position, mooring lines or ground tackle in use, tide and weather information, the status of the engineering plant, the status of the unit's boats, and all other matter affecting the safety and security of the unit

- Ensuring all required entries are made in the deck log, and signing the log at the end of the watch

- Carrying out the routine as published in the plan of the day, ensuring the executive officer, CDO, and department heads are informed of circumstances requiring changes in routine or other action on their part

- Ensuring boats are operated safely and all boat safety regulations are observed

- Supervising the operation of the general announcing system; the general and chemical alarms; and the whistle, gong, and bell

- Displaying required absentee pennants, colors, and general information signals; and supervising the rendering of honors

- Making all required reports to the CDO, executive officer, and commanding officer as directed by standing orders to the OOD

- Supervising and conducting the on-the-job training for the JOOW, JOOD, and the enlisted personnel of the quarterdeck watch

The duties of the OOD are far less complex in port than at sea, but the in-port watch is still a very demanding job. The OOD supervises the quarterdeck and gangway and greets all visitors. The OOD maintains the security of the unit, inspects packages and liberty parties, and carries out the ship's routine. While performing all these duties simultaneously, the OOD sometimes finds the job overwhelming. Having complete authority over the ship, under the CDO, enables the OOD to control all the functions of the job.

DIVISION OFFICERS

As mentioned earlier, your first assignment will probably be as a division officer. The size of a division varies. Some divisions may have as few as 5 personnel, while others may have as many as 300. Regardless of division size, as the division officer you will be responsible for ensuring the division operates properly and efficiently. Some of the duties and responsibilities of the division officer are as follows:

- Assuming responsibility for the duties assigned to the division and for the conduct of subordinates

- Promptly reporting to the department head repairs required or other defects needing correction that are beyond the capabilities of the division

- Ensuring optimum material readiness within the division

- Directing the operation of the division through leading petty officers

- Supervising the performance of the work centers within the division in carrying out the ship's maintenance and material management

- Ensuring damage control equipment, fittings, and checkoff lists in assigned spaces are in proper working condition and are properly labeled

These duties and responsibilities represent only a portion of the division officer's tasks. Other responsibilities may be assigned by department heads, the executive officer, or the commanding officer. Many of the division officer's duties are performed daily, while others are performed less frequently.

Sometimes you may feel you don't have enough hours in the day to perform all of your duties. This is where proper time management and the effective use of your division personnel come into play. To run your division effectively, you have to delegate some of your authority to your chiefs and leading petty officers. Keep in mind, however, that while you may delegate authority, you cannot delegate your responsibility or accountability.

INSPECTIONS

One way the division officer can ensure the division meets all of its requirements is by holding inspections. By personal supervision and frequent inspections, the division officer can ensure personnel satisfactorily maintain spaces, equipment, and supplies assigned to the division. Through these inspections, the division officer can identify and require the removal of safety hazards and discover and correct material discrepancies.

The division officer should also inspect division personnel at morning quarters to ensure they present a neat, clean, and well-groomed appearance. Conducting daily personnel inspections ensures the division's readiness for a surprise inspection by the executive officer or the department head.

Additionally, division officers should inspect all assigned spaces on a daily basis. The division officer should not delegate this responsibility. Inspecting all the spaces for cleanliness indicates to division personnel that the division officer cares about them and their living and working conditions. It also gives the division officer the opportunity to talk to subordinates. As the division officer, praise the division for clean spaces, unless you note deficiencies. Set standards for cleanliness and then ensure those standards are met.

Periodically, external inspection teams will conduct inspections. These inspections include the operational readiness evaluation (ORE), maintenance and material management systems inspection, command inspection, board of inspection and survey (INSURV) inspection, and operational propulsion plant examination (OPPE). As the division officer, you are responsible for preparing your division for these inspections and ensuring your division is ready when the inspection party arrives.

TRAINING

To have an efficient division, the division officer has to ensure all division personnel are properly trained. *SORN* devotes an entire chapter to the subject of training. It provides guidance to help you develop and schedule a division training program.

Divisional training programs should cover in-rate, watch station, systems, and general military training topics. The training program should also include personnel qualification standards (PQS). Additionally, all naval personnel should receive training in safety.

Safety training programs should be designed to teach personnel safety-related precautions. The training should provide personnel with enough information to ensure their safety and well-being. Such information should lessen their chances of being injured or killed or of causing damage or destruction to our limited material resources.

The total safety program encompasses all safety areas, such as aviation, shipboard, and weapons and/or explosives safety, as well as occupational safety and health. The Navy Occupational Safety and Health (NAVOSH) Program is a major component of the total safety program.

Over the last several years, the CNO has issued many instructions that address employee safety and health issues. The purpose of the instructions has been to update the NAVOSH Program and to combine these instructions into a single organized program. The NAVOSH instruction currently in effect is OPNAVINST 5100.23B.

QUALIFICATIONS

Division officers are responsible for ensuring their personnel qualify for the watches they stand as well for their in-rate advancement. To ensure personnel qualify in a timely manner, the division officer should track the progress of division members. The qualification process goes hand in hand with the division training program. If an effective training program is in place, personnel will qualify for watches and advancement quickly.

While keeping the division qualifications on track, division officers must also complete their own necessary qualifications. Trying to achieve your own qualifications while keeping up with those of division personnel may seem like a full-time job; but you are responsible for both.

Advancement in Rate

Personnel must meet various qualifications to advance in their rate. Some of these qualifications apply to all enlisted personnel, while others may only apply to their particular rate.

To qualify for advancement for the next higher paygrade, all enlisted personnel in paygrades E-4 through E-7 must complete the applicable personnel advancement requirements (PARs). They also must pass the military/leadership exam and the Navywide advancement exam for their rate and have their commanding officer's recommendation. Other advancement requirements are also necessary, such as requiring personnel to complete performance tests or specific courses successfully or to attend certain schools.

To provide the leadership and guidance needed to help personnel advance in rate, division officers should become familiar with the rating qualifications of their personnel. The *Advancement*

Handbook for Petty Officers, published annually for each rating, provides an excellent source of information on these requirements.

Watch Stations

Almost every division of any command in the Navy requires personnel to stand watches. Although the requirements for the different watches may vary, personnel must meet the qualifications for each watch they stand. Division officers must provide qualified individuals from their division to meet these watch requirements.

Before personnel can stand a watch, they must complete the PQS for that watch. The PQS Program qualifies officer and enlisted personnel to perform portions of their assigned duties. This could include a specific watch station, such as OOD, or a specific job, such as 3-M coordinator. Personnel qualification standards are a written compilation of the knowledge and skills required for a specific watch station. Division officers have the responsibility of tracking the progress of their personnel in completing the PQS required of them. Having an efficient watch team requires having personnel who are properly qualified to stand the watches. Anything less is an invitation to disaster.

SUMMARY

While being a naval officer may not be one of the easiest jobs you have, it could well be the most rewarding. It might not make you rich or famous, but it can be a job in which you have great pride.

Your duties as a naval officer are immense; yet so is your authority. Use this authority wisely in performing your duties. Remember, the gold bars you wear on your collar don't make you smarter; they only give you authority. Depend on your chiefs and petty officers for guidance; they have the experience and can teach you much if you will let them.

Think back on chapter 1 for a moment. Do you remember what the role of the U.S. Navy is according to Title 10 of the U.S. Code? The Navy's role is to be ready to conduct prompt and sustained combat operations in support of the national interest. For the Navy to be able to fulfill this role, you, as a naval officer, must be ready to perform your military duties. Only through self-examination, study of your job, and mature and rational performance can you fulfill your duties and responsibilities as a naval officer.

REFERENCES

Standard Organization and Regulations of the U.S. Navy, OPNAVINST 3120.32B, Office of the Chief of Naval Operations, Washington, D.C., September, 1986.

United States Navy Regulations, 1990, Department of the Navy, Office of the Secretary, Washington, D.C., 1990.

SUGGESTED READING

Lee, D.M., J.M. Brown, R. Morabito, H.S. Dolenda, *Watch Officer's Guide*, 12th ed., Naval Institute Press, Annapolis, Md., 1986.

Mack, W.P. and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

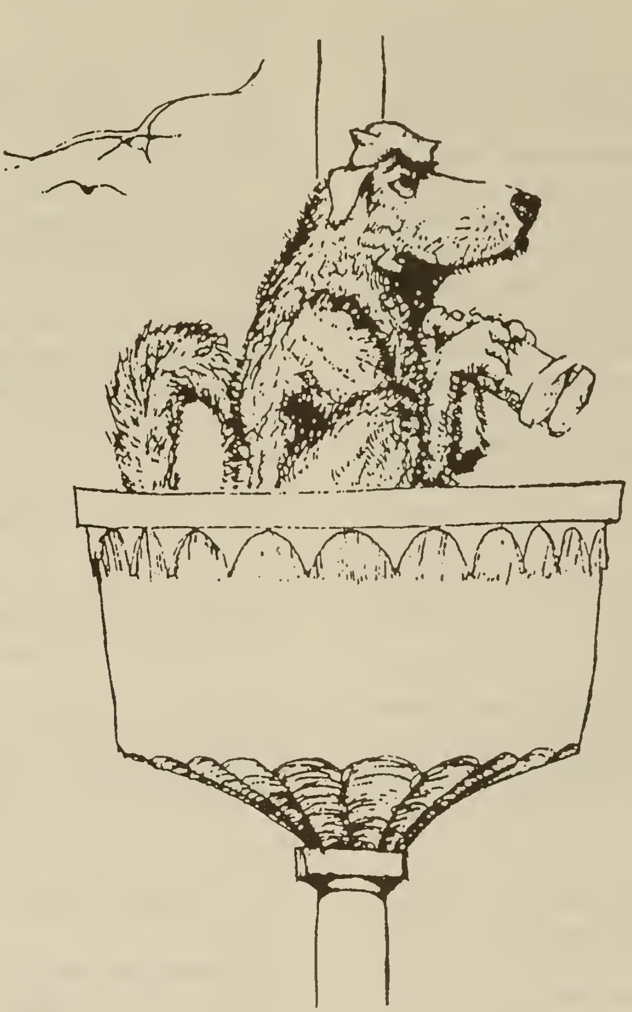
Noel, J.V., *Division Officer's Guide*, 8th ed., Naval Institute Press, Annapolis, Md., 1986.

U.S. Department of Defense, *The Armed Forces Officer*, DOD GEN-36A, American Forces Information Services, Washington, D.C., 1988.

DOG WATCH

DOG WATCH IS THE NAME GIVEN TO THE 1600-1800 AND THE 1800-2000 WATCHES ABOARD SHIP. THE 1600-2000 4-HOUR WATCH WAS ORIGINALLY SPLIT TO PREVENT MEN FROM ALWAYS HAVING TO STAND THE SAME WATCHES DAILY. AS A RESULT, SAILORS DODGE THE SAME DAILY ROUTINE, HENCE THEY ARE DODGING THE WATCH OR STANDING THE DODGE WATCH.

IN ITS CORRUPTED FORM, DODGE BECAME DOG AND PROCEDURE IS REFERRED TO AS "DOGGING THE WATCH" OR STANDING THE "DOG WATCH."



CHAPTER 5

DISCIPLINE AND LEADERSHIP

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the purpose of discipline in the military.
2. Describe the various qualities of a leader.
3. List the actions that characterize an outstanding officer.
4. Identify the core values of the U.S. Navy.
5. Describe the Navy's policy on equal opportunity.
6. Identify the Navy's support program for single parents.
7. Describe the Navy's policy on fraternization.
8. Describe the Navy's policy on sexual harassment and sexual responsibility.
9. Identify the Navy's requirements for physical readiness.
10. Identify the six points of the code of conduct.
11. Describe the Navy Leader Development Program courses offered by the Navy.

Civilian executives lead by virtue of superior knowledge (through education an/or experience) and strong characteristics or personality. No law sanctions their positions, and they may not be legally responsible for those they lead. Their responsibility, if any, for the well-being of their followers is primarily a moral one. On the other hand, military officers, by virtue of their commissions, have a legal as well as a moral obligation. They represent the government's responsibility to enforce the law of the land, and they are charged with the well-being of their personnel.

A leader's position is, to an extent, analogous to that of a skilled artisan with a fine set of tools. The artisan keeps those tools in first-class condition, for on them depends the artisan's ability to turn out fine work. The leader's tools are the personnel who are assigned to accomplish the assigned mission. They, like the artisan's tools, must be in good physical condition; but here the analogy ends. Personnel are not objects to be polished by supplying their physical needs, to be laid aside when finished with a job, and to be picked up again when needed.

Even though the Navy does everything feasible to provide for the physical well-being of its personnel, the young officer must not assume that personnel are well cared for. The officer must be personally concerned with their welfare and must know each individual's background, capabilities, and limitations. The officer should be aware constantly that debts, personal health, or any one of many problems may destroy a person's peace of mind and efficiency.

A good officer gains the confidence of the personnel so that they will feel free to talk about their problems, knowing they will get all possible assistance. Occasionally people have difficulty discussing their personal problems with a superior. A skillful officer may be able to draw such people out and help them; however an officer should use care and tact when attempting this.

Every group has a few people whose sole interest in life is to complete their time in the Navy and return to civilian life. Most of them are merely disinterested, but from their ranks many troublemakers arise. Any single division may have only one or two of them; in the aggregate, however, they present a tremendous problem. Properly motivated and instilled with a little moral responsibility, they can become a great asset. All are important, and we must not lose their services through failure to redirect their interests and energies.

The rebellious ones must be made to understand they will be required to abide by rules and regulations wherever they go, not only in the Navy. They must see that rules and regulations serve as guides by which we live and, if followed by all, make life more pleasant and easy for all of us. They must be taught that the more they discipline themselves, the less they will be disciplined by others. They must be shown their importance to the team and that their shipmates must be able to depend on them day by day, as well as in battle. They, along with those who are disinterested, must be made to realize that increasing their knowledge, advancing in rate, and assuming more responsibilities are not matters of personal preference but duties.

In this chapter we will discuss why discipline and leadership are essential to a military organization.

PURPOSE OF DISCIPLINE

The word *discipline* comes from a Latin word meaning "to teach," but it is a certain type of teaching. Discipline is not peculiar to military organizations. Discipline is the training that develops self-control, character, and efficiency, or is the result of such training. Discipline, rightly viewed, is a character builder rather than a destroyer of individuality.

The Navy's discipline consists of training its men and women to behave in certain ways under certain circumstances. It enables them to work as a unit with maximum efficiency. To encourage them toward this end, the Navy uses a system of motivation and correction through reward and punishment. Ambitious Navy men and women, when recommended by their commanding officers, are rewarded by timely promotions; lazy or careless individuals suffer a self-inflicted punishment by missing out on these promotions. Those who are negligent or indifferent get into trouble and are punished by fines, restriction, confinement, demotion, and other forms of disciplinary action. Discipline implies adherence to control exerted for the good of the whole—the compliance with rules or policies intended for the orderly coordination of effort. In a study on this subject, Admiral Arleigh A. Burke, USN (Retired), stated that "a well-disciplined organization is one whose members work with enthusiasm, willingness, and zest as individuals and as a group, to fulfill the mission of the organization with expectation of success." Personnel show signs of discipline in smart salutes, proper wearing of the uniform, prompt and correct action in any emergency, and battle efficiency that brings victory in wars. Discipline, obviously, is indispensable to a military organization. Without it almost any effort would be defeated by lack of organization. Discipline demands habitual but reasoned obedience to command—obedience that preserves initiative and functions unfalteringly even in the absence of the commander.

The purpose of discipline in the military services is to bring about an efficient military organization. Its aim is to train and control a body of human beings for concerted action to attain a common goal. Discipline trains each individual to fit into the organization as a whole. The members understand one another through the sharing of common knowledge. They are bound together by a unity of will and interest that is expressed by their willingness to follow and obey their leader. A group so organized is effective, not only for the specific purpose intended, but also for an emergency.

REWARDS

You can see the rewards of good discipline in various ways in the naval organizational structure. The positive results are evident as sailors advance in rate, a division receives a passing grade on an inspection, or a ship successfully completes a deployment.

The reward of good discipline for an enlisted person may be in the form of a Good Conduct Medal. If individuals are disciplined, they will learn their rating and be rewarded with promotions.

These same individuals, when placed in divisions, can also help establish discipline there. The responsibility for divisional discipline falls on the petty officers, chiefs, and division officer. The reward of a well-disciplined division is that it will operate smoothly and efficiently.

Discipline has to be present to make any organization work, but this is especially true in the military. It is what brings individuals together as a military team. Thus, a gun crew may be readily converted into a repair party for carrying out any essential job within its capabilities, or a company of midshipmen may be turned into a fire-fighting organization. A well-disciplined naval unit responds automatically to an emergency and is not subject to panic. This is the reward of discipline to the Navy.

PUNISHMENT

Under the Navy's concept, punishment is not personal, it is not vindictive, nor is it inflicted as revenge for misconduct. The Navy realizes that punishment cannot right the wrong resulting from an act of dereliction. The Navy considers that the value of punishment lies in the object lesson it furnishes the wrongdoer and others—that the offense must not be repeated. This concept is referred to as the deterrent theory of punishment.

To accomplish its purpose, punishment must be consistent, just, and recognized as such by the recipients and their shipmates. Punishment should neither be of such a nature that it lowers self-esteem nor so severe that it is out of proportion to the offense.

Recipients of Navy punishment should keep two facts in mind: First, they received punishment only as a result of their misbehavior. Second, they will not receive punishment again if they learn to conform to Navy standards of conduct.

The administration of punishment is not personal; therefore, those who administer it should be shown no malice. They are carrying out their duties as required by Navy regulations.

QUALITIES OF A LEADER

No two leaders are exactly alike. They do not possess the same qualities in equal proportions, nor do they accomplish their ends in the same manner. One thing is certain, however. All great leaders possess certain characteristics and abilities that they use to the greatest advantage. Some have turned weaknesses into strengths and, by exercise of willpower and hard work, risen far above what normally might have been expected of them.

Every leader will not possess every quality discussed here, but every good leader will have a substantial number of them. Moreover, the less natural ability a leader has, the more important is the person's need to cultivate the leadership qualities needed to be effective. All truly great leaders share one common characteristic: a personal code of conduct and moral responsibility that does not permit them to exploit their abilities and positions to the detriment of their followers.

Most of us understand about written and unwritten laws that guide our actions and define our duties—"thou shalts" and "thou shalt nots" by which we must abide. Our government establishes written laws while the Navy establishes many written and unwritten laws and prescribes our duties. If we break these laws or neglect our duties, authorities may give us suitable punishment.

Other laws and other duties have no legal standing as far as any law-making or law-enforcing branch of government is concerned. These are moral laws and duties. Each leader establishes these based on his or her own principles. Depending on the character of the person, they can be extensive and more binding than any statutory laws, or they can be completely nonexistent. The leader receives no legal punishment for ignoring these laws and duties, and the only enforcer is the leader's own conscience.

In various places throughout this text, we quote rules and regulations, at times explaining them in more or less detail. Therefore, we assume the reader, by now, understands what legal responsibilities are. But what about moral responsibilities? The Navy expects its personnel to demonstrate more than minimum standards of moral responsibility. It expects commanding officers and others in authority to set good examples of virtue, honor, patriotism, and subordination. It expects them to be vigilant in inspecting the conduct of persons under their command and to suppress all dissolute and immoral practices. It expects those in authority to take necessary and proper procedures to promote and safeguard the morale, physical well-being, and general welfare of persons under their command.

The history of effective naval leadership has isolated additional moral principles that have characterized successful leaders from the beginning of naval history to our present time. These principles are loyalty, devotion to duty, professional knowledge, self-confidence, initiative and ingenuity, courage, ability to organize and make decisions, and personal example.

LOYALTY

Loyalty means a true, faithful, strong (even enthusiastic) devotion to one's country. Ordinarily personnel assume this type of loyalty without question, but they must also broaden their loyalty to include their superiors and subordinates.

Because of human nature, the ordinary person wants to and will extend loyalty to others in the organization. In the long run, however, everyone must earn the loyalty of others. Part of the price a person pays for earning this loyalty is extending loyalty to others. Enlisted personnel are particularly sensitive about loyalty extended to them and are quick to discern and resent its absence. The degree of loyalty a division officer shows toward the division has a direct bearing on the morale of division personnel. Most persons have a strong devotion to duty, and their self-respect will not allow them to neglect that duty merely to spite a superior. But the officer who has not earned the loyalty of the personnel cannot expect to receive that extra effort above the call of duty often necessary to accomplish a mission. This brings us to another important quality, devotion to duty.

DEVOTION TO DUTY

Devotion to duty is closely allied to loyalty. In fact, it might be defined as loyalty to the post or position one holds. Occasionally immature young persons feel their talents are superior to those required to fill the positions in which they find themselves. In such cases these young persons may become resentful because their abilities are not used to better advantage. Consequently, their performance falls off.

More mature persons might assume that because the position exists, it must be important even though the importance is not readily apparent. Assuming this, such persons give a little more to the position than it requires by spending their extra energy and talents learning the new job. Thus, they fulfill their obligation to the organization, inspire other personnel to greater efforts, and earn the respect of all concerned. When important openings occur, the choice between these individuals and others less willing to put forth extra effort is clear.

Any civilian firm would consider ambitious persons as positive assets; employers would keep their eyes on them and perhaps expect great things of them. However, mere ambition is not enough in the military service. Any military service expects all of its officers or enlisted persons to place duty above themselves. Everyone at all times must do their duty to the best of their ability. They must do their best in an effort to support the efficient accomplishment of the Navy's mission, not to receive personal gain.

Individuals who refuse to shoulder their share of the load make it that much heavier for the rest of the unit. Hardships may be increased, lives may be sacrificed needlessly, and the unit might fail to accomplish its mission. The well-known parable of the loss of a kingdom through want of a horse describes the situation perfectly.

The ability to take orders goes hand in hand with devotion to duty. One so closely follows the other that distinguishing between them is difficult. Commands usually issue standing orders to cover every situation. The orders help those assigned to the position do the job more effectively. As soon as a person receives an order, it becomes that person's duty to carry it out. Therefore, personnel should not resent even the most trivial order, even one given in the nature of a reminder, necessary or not. Personnel should obey each order quickly and cheerfully and report its accomplishment to the superior who gave it.

Devotion to duty and the ability to take orders are so important that the Navy has no place for the immature people who refuse to grow up. It has no place for the self-seekers who do their best only when it is advantageous to them to do so. The Navy doesn't need resentful, hard-headed, self-important individuals who cannot take orders.

PROFESSIONAL KNOWLEDGE

Leaders who thoroughly know their job are far better qualified to lead than ones who do not; but unfortunately, professional experience does not burst into full bloom merely because one wishes it so. Although as a new officer, you will have professional knowledge, you will lack professional experience when you step aboard ship for the first time. Yet, you will be placed in a position of leadership, given various jobs to do, and then seemingly left to your own devices. The jobs will appear monumental to you. Uppermost in your mind will be the probability of your making a serious error that could expose your inexperience. You will have people on all sides, however, ready to assist you.

The officer you relieve will assist you in learning your new duties, outline the present program, and point out what has not been done. The officer will also discuss the inherent difficulties of the job and briefly describe the abilities and personalities of your new division personnel. Senior officers are always ready to give you a helping hand. While tolerant of your inexperience, they will insist that you do your duty and master the job as quickly as possible. Your petty officers will also teach you provided you show them you are willing to benefit from their experience. If necessary, the petty officers will ''carry you'' (as the expression goes) as long as you try to learn. The instructions may be subtle or frank, depending upon the personality of your teachers. A few old hands may persist in their offers of aid even when rebuffed, but the majority will promptly lose the desire to help as soon as you, the officer, lose your desire to learn. Therefore, it pays to be willing to listen to advice and suggestions. Even the newest seaman apprentice might be able to make a worthwhile contribution.

SELF-CONFIDENCE

As an officer's knowledge grows, self-confidence, a most important quality of leadership, should grow. A vast store of knowledge is meaningless without the confidence and ability to use it. Never, however, should leaders become so swelled with the importance of their ''superior'' education, ''vast'' professional knowledge, or ''noteworthy'' accomplishments that they display arrogance. Remember that the ordinary enlisted person is not overly impressed with the number of academic degrees officers hold; the enlisted person is most impressed with the officers' abilities. Enlisted personnel can understand self-confidence in proven officers, but they will regard arrogance in new, untried ensigns as sheer buffoonery. They will meet arrogance with indifference and resentment. The officers' accompanying loss of respect will greatly diminish their control over personnel.

INITIATIVE AND INGENUITY

Junior officers are confronted with a multitude of Navy rules, regulations, operating instructions, procedures, and the policies of senior officers. Therefore, junior officers may assume they have little room for personal initiative and ingenuity in the Navy today. Actually, the reverse is true. With its new ships, equipment, technology, and concepts, the Navy has a demand for officers with initiative and ingenuity. Today's naval officers need the imagination to realize their potentiality and the skill and daring to develop their potentiality to its fullest extent.

Although limited by rules and regulations, officers have an opportunity to exercise initiative and ingenuity nearly every day. At first, these opportunities may entail only small problems requiring only a little ingenuity or initiative. However, if officers don't take advantage of the small chances offered, they will never gain enough self-confidence to tackle the bigger problems.

COURAGE

Courage is one of the more necessary characteristics of a leader. It is that quality of the mind which enables us to meet danger and difficulties with firmness. It enables us to overcome the fear of failure, injury, or death that normally precedes any difficult or dangerous act we may attempt. Further, courage enables us to acknowledge our responsibilities and to carry them out regardless of consequences.

Courage is a quality of the mind and, as such, can be developed. Like a muscle, you can strengthen it with use; the more you exercise it, the stronger it grows. Each time people meet and tackle an obstacle, whether it is a particularly tough assignment, an examination in school, or a hard-charging fullback on the football field, they strengthen their courage a bit more. While succeeding at an attempt might provide a great deal of satisfaction to people, success itself is not completely essential to the development of their courage. In fact, people who frequently become frustrated in their attempts but continue to try again and again probably develop their courage faster than those who succeed at every endeavor.

Young people thinking about going into battle for the first time may have difficulty believing that anything in their background has prepared them to overcome the fear they will experience. Having doubts about their ability to conduct themselves with honor is normal. Because the military services recognize this fact, they condition and train their warriors under the most realistic conditions possible.

Our Navy is no exception. Before going into battle, all hands have become well acquainted with the smell of gunpowder. They have been trained and drilled at their battle stations until their actions are almost automatic. Because of this training, the fast action involved, their sense of duty, the inspiration of their cause and their leaders, and the close proximity of others, even timid persons can develop courage. This courage will help them endure without faltering during the comparatively short, though terrible, periods of battle or emergency.

A courageous person is not necessarily fearless, but has learned to conquer fear and concentrate on the mechanics of fighting.

ABILITY TO ORGANIZE AND MAKE DECISIONS

Essentially your primary objective as a junior officer is to coordinate the efforts of your subordinates so that they can strive toward a common goal. However, the normal day-to-day activity of the maintenance program of the peacetime Navy may not readily reflect this. This objective is more difficult to achieve when the goal is less easy to define. However, an overall view of the maintenance and training programs shows how each minor accomplishment fits into the whole. You should organize your subordinates so that their labor and training will be used to the best possible advantage.

To organize effectively, know the skills and physical capabilities of your personnel. Without that knowledge you would have to rely on a senior petty officer to do the job. For officers to rely on petty officers to the extent of their abilities is proper and desirable. However, as an officer, never allow yourself to be reduced to the position of an old-time midshipman—a messenger running between the wardroom and the forecastle.

While you cannot help but profit from careful observation of the methods of skilled organizers, you should eventually attempt some organization on your own. To do so, learn to make decisions; without the power of decision, you are useless as a leader. When a person presents a problem to you, that person expects a clear-cut decision. Discuss complicated questions or those clearly beyond your authority to decide with an immediate superior; dispose of the lesser ones yourself. Never allow the dread of making a mistake or the fear of looking ridiculous to deter you from attempting to solve a problem. You will make mistakes occasionally, but an honest mistake seldom involves scorn or censure if all elements of the problem were duly considered. From mistakes comes experience, and from experience comes wisdom.

PERSONAL EXAMPLE

Young people have a strong personal need for examples to live by, at least until they have formulated their own principles. They express this need by following the example of someone they admire—father, brother, teacher, officer, a great leader in history, or even someone with antisocial tendencies or habits. Young people will, in some way, attempt to attach to and be like the person they admire. As long as these young people are not disillusioned and as long as they feel the need, they will continue to emulate their hero.

Naval officers should have such dignity and competence in all respects that they inspire their enlisted personnel to emulate and respect them. We cannot overemphasize the value of setting a good personal example in your daily life.

Officers cannot live by the rule of "don't do as I do; do as I say" without the risk of personnel regarding them with suspicion or distaste. Suspicious or distasteful regard for an officer greatly diminishes the officer's reputation as a leader. On the other hand, outstanding conduct by an officer can inspire others to follow the same pattern, thereby benefitting the entire Navy.

When we speak of conduct, we mean conduct ashore as well as aboard ship. A person in uniform is consciously or unconsciously watched by everyone around. In the minds of the observers, that person's actions are interpreted as typical of everyone who wears a similar uniform. Therefore, we must do nothing to dishonor the uniform, lest, in so doing, we dishonor the entire Navy.

You cannot expect others to follow regulations if you ignore them. Depending on the extent of the digressions, you may, for all practical purposes, completely lose control of your personnel. You may not realize you have lost control at first because someone else may keep the personnel in line. However, sooner or later the realization will become apparent, but by that time you may be unable to do anything about it. In any event, to regain the respect of your personnel and to reestablish control over them will require extraordinary effort. "Rank has its privileges," but those privileges are not extended to cover deviations from accepted conduct. Rather, when speaking of conduct, we must stress that "rank has its responsibilities."

Sign of an Outstanding Officer

Former Chief of Naval Operations George W. Anderson, Jr., considered that truly outstanding officers display the following traits. Many have a direct relationship to effective leadership and thus are considered when officers are evaluated for reports of fitness.

- ACHIEVEMENTS—They produce results; many are industrious. The effectiveness of the work serves as a measure of their achievements.

- ABILITY TO MAKE DECISIONS—They evaluate information, analyze the problem, and then integrate the two into a sound and incisive decision. (This is closely allied to achievement.)

- BREADTH OF VISION—They bring to the profession a knowledge of all the political, social, scientific, economic, and military components that impinge upon the Navy.

- PERSONAL APPEARANCE—They take pride in every detail of their personal appearance.

- MILITARY BEARING—They conduct themselves in a professional military manner afloat or ashore, 24 hours a day, every day.

- MENTAL ALERTNESS—They give continual attention to detail coupled with an awareness of the big picture.

- ABILITY TO EXPRESS SELF—They express themselves clearly orally and in writing to communicate their ideas and decisions.

- CONTACTS WITH PEOPLE OUTSIDE THE SERVICE—They have contact with people outside their profession through participation in personal activities and interests. Officers who allow themselves and their interests to become completely involved with their profession will find they have exhausted their potential growth.

- BEING A GOOD SHIPMATE—They do not lose sight of their relationships with others in the Navy. They realize they cannot function alone and can be effective only through others.

- IMAGINATION—They use their imagination and initiative to improve the task performance of their entire unit as well as their own performance. A fitness report that states "This officer performs all ASSIGNED duties in an excellent manner" could easily describe an officer who has stopped growing.

- KNOWLEDGE OF THE JOB—They have a complete mastery of their job plus a detailed knowledge of all its responsibilities, including those of subordinates.

- MANNER OF PERFORMANCE—They know themselves, the job, the enlisted personnel, and the immediate situation. They use four approaches to get the job done: (1) personally do it, (2) drive others to do it, (3) inspire others to do it, or (4) combine the three in the best manner.

- SOCIAL GRACE—They know the rules of social etiquette, such as which fork to use; but more importantly, they know how to show a sincere interest in the people they meet.

- SENSE OF HUMOR—They keep everything in the proper perspective; they distinguish between the important and the trivial.

- PERSONAL BEHAVIOR—They reflect integrity and honor in every facet of their behavior.

CORE VALUES

The Navy established a set of core values to encourage personnel to make a commitment to personal excellence. These core values consist of Navy traditions and values that are in consonance with our national values. In October of 1987 the Navy appointed a team of reviewers to determine what these values should be. The team interviewed more than 100 sailors representing all communities, all fleets, and numerous positions within the chain of command. The team asked these sailors to do the following:

- Describe "tough situations" that posed values conflicts or ethics dilemmas.

- Characterize those persons they admired most and least in the Navy.

- Discuss in very real terms the values that the Navy represents.

As you can imagine, these interviews produced enlightening accounts and personal insights, most of which revolve around a set of common themes. They named the following values as those most often portrayed in everyday decision making and espoused as important to the Navy:

TRADITION

- Concern for people
- Patriotism
- Courage
- Spiritual heritage

INTEGRITY

- Honesty
- Honor
- Responsibility

PROFESSIONALISM

- Competence
- Teamwork
- Loyalty

The Navy expects these core values to result in a reemphasis and refocus of traditional Navy values and an improvement in the ethical practices of the Navy.

EQUAL OPPORTUNITY

The Department of the Navy's policy is to provide equal treatment and equal opportunity to all Navy members, without regard to race, religion, gender, age, or national origin.

The Command Managed Equal Opportunity (CMEO) program assists commands in supporting the Navy's equal opportunity (EO) policy. This management system is responsive to higher echelons but is controlled primarily at the command level. The program has four basic elements:

COMMAND TRAINING TEAM (CTT): The CTT conducts the Navy Rights and Responsibilities (NR&R) Workshops. These workshops present training on basic Navy EO principles and policies, sexual harassment prevention, and command-specific issues.

COMMAND ASSESSMENT TEAM (CAT): The CAT conducts the annual command assessment. This survey focuses on EO personnel management practices. It also surfaces problems or issues not directly related to EO that impact on the quality of life within the command. To help make the command assessment, the CAT collects data on retention, advancement, and discipline. The team obtains additional data from interviews, observations, and surveys.

ACTION PLANNING: A plan of actions and milestones (POA&M) provides for and tracks the correction of existing or potential problems.

INSPECTIONS: Immediate superiors in command (ISIC) conduct CMEO inspections of subordinate commands.

The Navy Affirmative Action Plan (NAAP) also promotes the Navy's EO program. The NAAP consists of a continuing program of goals and actions with realistic milestones. Affirmative action is the taking of positive steps to correct or eliminate discrimination. These steps are designed to correct problems and achieve goals over a period of time. Therefore, continued monitoring is required as specific actions are completed and to ensure that the Navy does not regress. The NAAP is revised as appropriate after each annual equal opportunity assessment.

Equal opportunity is essential to Navy leadership. It must exist at every level of the chain of command as an integral part of the Navy's commitment to pride, professionalism, and personal excellence. Equal opportunity improves the quality of life for all Navy personnel, increases combat readiness, and contributes to mission accomplishment.

To be an effective officer, you should support equal opportunity as part of your basic leadership skills. The personal example you set in support of equal opportunity should motivate your subordinates to do the same.

SINGLE PARENTING

The demands of the Navy lifestyle make single parenthood rough. But by taking full advantage of the resources available, single parents can make their lives, and their children's lives, more rewarding and less stressful.

Navy single parents have more help available to them than ever before because of Family Service Center programs and expanding child care options. Family Service Centers provide informational, referral, educational, and other counseling services designed to assist single parents and their children.

Child care is always a big concern—and often a big headache—for single parents. The capacity of Navy-operated child care facilities is not always sufficient for the number of children eligible to use them.

The Family Home Care (FHC) program allows spouses of Navy members to care for children of Navy personnel in their government quarters. FHC serves over 30 commands stateside and overseas. Those who wish to open their homes for day care must complete training that includes cardiopulmonary resuscitation (CPR) instruction. Child care providers involved in the FHC program must purchase insurance, which is available at a nominal fee. A professional monitor ensures that the child care offered is of the highest quality by providing training, screening and background checks, and monthly visits to FHC homes.

The Navy requires all single parents to include in their service record a Dependent Care Plan and Navy Dependent Care Certificate, OPNAV 1740/1, that provides a plan for dependent care arrangements. The plan must include details such as who will provide care for the children during the parent's normal duty hours, temporary additional duty (TAD) assignments, and deployments, as well as other pertinent information. The parent must also provide a will with guardianship provisions and a power of attorney authorizing medical care. The *Military Personnel Manual (MILPERSMAN),* article 3810190, outlines the dependent care policy and specifies the information parents must include on the certificate.

Some people worry that their status as single parents may hurt their Navy career, but this is simply not true. As long as parents keep an up-to-date dependent care certificate in their record, they have no limits on what they can achieve.

Single parenting in the Navy isn't easy, but an understanding of Navy policy can help a single parent's career run more smoothly. Single parents should realize the Navy expects them to accept full responsibility for the care of their children as well as their job requirements.

FRATERNIZATION

Navy customs and traditions have historically defined the bounds of acceptable personal relationships among its members. Proper social interaction among officer and enlisted members has traditionally been encouraged, as it enhances unit morale and esprit de corps. At the same time, unduly familiar personal relationships between officers and enlisted members have traditionally been contrary to naval custom. They undermine the respect for authority that is essential to the Navy's ability to accomplish its military mission.

Over 200 years of seagoing experience has demonstrated that seniors must maintain thoroughly professional relationships with juniors at all times. This custom prevents personnel from using a senior grade or position to show (or give the impression of showing) favoritism or preferential treatment or for personal gain. It also helps prevent officers from becoming involved in other actions that undermine good order, discipline, authority, or unit morale. In a like manner, custom requires that junior personnel recognize and respect the authority inherent in a senior's grade, rank, or position.

Fraternization is the traditional term used to identify personal relationships that cross the customary bounds of acceptable senior-subordinate relationships. Although it has most commonly been applied to the officer-enlisted relationship, fraternization also includes improper relationships between officer members and between enlisted personnel.

By definition, fraternization is any unduly familiar personal relationship between an officer and an enlisted member that does not respect differences in rank and grade. It also includes personal relationships between officers or between enlisted personnel in which a senior-subordinate supervisory relationship exists.

Fraternization is punishable as an offense under the *Uniform Code of Military Justice* when it is prejudicial to good order and discipline or brings discredit to the naval service. We cannot name every act that may be prejudicial to good order and discipline or is service discrediting; the surrounding circumstances often have more to do with making the act criminal than the act itself. However, dating, cohabitation, or sexual intimacy between officer and enlisted members is clearly inappropriate. A private business partnership between officers and enlisted persons is also inappropriate. Likewise, such conduct between officers and between enlisted members in which a senior-subordinate supervisory relationship exists is equally inappropriate. Conduct that constitutes fraternization is not excused by a subsequent marriage between the offending parties.

The responsibility for preventing inappropriate relationships rests primarily on the senior. The senior party is expected to control and preclude the development of inappropriate senior-subordinate relationships. However, since the Navy's fraternization policy applies to both members, both are accountable for their own conduct.

SEXUAL HARASSMENT

Sexual harassment is not an amusing or trivial issue. It negatively affects the morale and productivity of service members as well as team building and mission accomplishment. It may also be a violation of any number of articles of the *Uniform Code of Military Justice* (fig. 5-1).

Sexual harassment is defined as (1) influencing; offering to influence; or threatening the career, pay, or job of another person in exchange for sexual favors; or (2) deliberate or repeated offensive comments, gestures, or physical contact of a sexual nature in a work or work-related environment. Sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment under the following circumstances:

1. When submission to such conduct is made either explicitly or implicitly a term or condition of a person's job, pay, or career
2. When submission to or rejection of such conduct by a person is used as a basis for career or employment decisions affecting this person
3. When such conduct has the purpose or effect of interfering with a person's performance or creating an intimidating, hostile, or offensive environment

Personnel, male or female, who use implicit or explicit sexual behavior to control, influence, or affect the career, promotion opportunities, duty assignments, or pay of any other Navy member are also engaging in sexual harassment. Sexual harassment is, therefore, the embarrassment, intimidation, or exploitation of one person by another through sex-related comments or behavior.

The Navy's long tradition of military professionalism results from its positive, aggressive leadership and its history of taking care of all Navy members. Commanders, supervisors, and subordinates are all responsible for providing an environment free from sexual harassment.

The Department of the Navy expects all of its personnel to support its policy of sexual harassment prevention. This not only includes refraining from practicing such behavior but actively countering and promptly reporting such actions.

SEXUAL RESPONSIBILITY

The Navy does not require its personnel to abstain totally from sexual relations. However, it does strive to instruct all Navy members on the importance of sexual responsibility and the dangers of sexually transmitted diseases.

Syphilis, gonorrhea, genital herpes, and Acquired Immune Deficiency Syndrome (AIDS) are all sexually transmitted diseases. They are normally spread through sexual contact. AIDS can also be spread through contaminated blood or by shared hypodermic needles. Sexually transmitted diseases are not spread through inanimate objects such as toilet seats, door knobs, or eating utensils.

The most serious of these diseases is AIDS. The AIDS virus attacks the body's immune system. This results in the body's inability to fight infection.

Military persons must receive live virus vaccines to protect them from certain illnesses and from possible exposure to serious infections when deployed outside the United States. These vaccines may be life-threatening to an infected person whose immune system has been damaged by AIDS.

At the present time no cure is known for AIDS. More than 70 percent of all AIDS cases prove fatal within 2 years of diagnosis.

As a Navy leader, you should be aware of these sexually transmitted diseases and the methods for reducing the risks of acquiring them. The only way people can be sure not to acquire these diseases is to abstain from all forms of sexual contact. To reduce the risks of acquiring sexually transmitted diseases, those who are sexually active should take the following precautions:

1. Avoid sexual contact with multiple partners, anonymous partners, prostitutes, and other persons with multiple sex partners.
2. Avoid sexual contact with persons who have a genital discharge, genital warts, genital herpes lesions, or other suspicious genital lesions.
3. Avoid oral or anal sex.
4. Avoid genital contact with cold sores.
5. Use condoms and diaphragms in combination with spermicides.
6. Have periodic examinations for sexually transmitted diseases.

IF THE SEXUAL HARASSER	THE SEXUAL HARASSER MAY ALSO BE GUILTY OF	IN VIOLATION OF
1. Threatens to influence adversely the career, salary or job of another in exchange for sexual favors.	Extortion.	Article 127
	Assault.	Article 128
	Communicating a threat.	Article 134
2. Offers rewards for sexual favors.	Bribery and graft.	Article 134
3. Makes sexual comment and/or gestures.	Indecent, insulting or obscene language prejudical to good order.	Article 134
	Provoking speech or gestures.	Article 117
	Disrespect.	Article 89, 91
4. Makes sexual contact.	Assault Consummated by a battery.	Article 128
	Indecent Assault.	Article 134
	Rape.	Article 120
5. Engages in sexual harassment to the detriment of job performance.	Dereliction of duty	Article 92
6. Is an officer.	Conduct unbecoming an officer.	Article 133
7. Is cruel to or maltreats any person subject to his or her orders.	Cruelty and maltreatment.	Article 93
8. Uses his or her official position to gain sexual favors or advantages.	Failure to obey a lawful general order.	Article 92

Figure 5-1.—Example of conduct which might constitute both sexual harassment and an offense under the UCMJ.

HEALTH AND PHYSICAL READINESS

Certain people in the Navy and in the civilian community share a common problem—excessive body fat. This problem usually results from people working at desk jobs, eating too much, and not getting enough exercise. Excessive body fat is a serious detriment to a person's health, longevity, stamina, and military appearance. We need to maintain a high state of health and physical readiness. If we do this, combat readiness, personal effectiveness, and high morale should follow.

Health and physical readiness have become a matter of concern to the Navy. Every Navy person should strive to achieve and maintain a high standard of physical readiness. Members who fail to achieve high standards hurt their units and the effectiveness of the Navy. Physical readiness training is a complete conditioning program. It includes weight control and nutrition, high blood pressure identification and control, stress management, smoking cessation, and back injury prevention.

As a leader, stress the importance of physical readiness training to your personnel.

CODE OF CONDUCT FOR MEMBERS OF THE ARMED FORCES OF THE UNITED STATES

Because of the conduct of a few Americans during the Korean conflict, President Dwight D. Eisenhower prescribed a Code of Conduct for members of the armed forces in 1955. The purpose of the code is to provide American military personnel with a standard of conduct should they be captured by an enemy. It provides a framework of ideals and ethical standards that will help personnel resist the physical, mental, and moral onslaughts of their captor.

In 1988 President Ronald Reagan issued Executive Order 12633, amending the code to use gender-neutral language. First expressed in written form in 1955, the code is based on time-honored concepts and traditions that date back to the days of the American Revolution.

ARTICLE I

> I am an American, fighting in the forces which guard my country and our way of life. I am prepared to give my life in their defense.

No matter what your job, you are a member of the team first. Your duty is to oppose the enemies of the United States under all circumstances.

ARTICLE II

> I will never surrender of my own free will. If in command I will never surrender the members of my command while they still have the means to resist.

Even when a situation seems hopeless, you often still have a chance to win. Remember John Paul Jones! As long as you have the means to resist, you must continue to do so. If you no longer have weapons, ammunition, or other means, you have the duty to evade capture and attempt to rejoin friendly forces.

ARTICLE III

> If I am captured I will continue to resist by all means available. I will make every effort to escape and aid others to escape. I will accept neither parole nor special favors from the enemy.

Even as a prisoner, you still have a weapon for resistance. That weapon is your mind—the determination to resist and to escape. Stay mentally and physically able to seize any opportunity to escape. By maintaining the burning determination to resist and escape, you keep your mind alert. These have been the ingredients in the stories of the personnel of all branches of the armed forces who have escaped from the enemy.

Never risk placing yourself under obligation to the enemy by accepting favors; the enemy will exploit to the utmost any weakness you show.

ARTICLE IV

> If I become a prisoner of war, I will keep faith with my fellow prisoners. I will give no information or take part in any action which might be harmful to my comrades. If I am senior, I will take command. If not, I will obey the lawful orders of those appointed over me and will back them up in every way.

Fellow prisoners are your friends in a prison camp. Jealously guard and protect that friendship. Do nothing and say nothing that would jeopardize a fellow prisoner. Article 105 (Misconduct as Prisoner) of the *Uniform Code of Military Justice* (*UCMJ*) provides for punishment of any person who jeopardizes a fellow prisoner. This includes anyone who causes damage or harm to other prisoners, of whatever nationality, for the purpose of gaining personally favorable treatment. It also includes anyone who cruelly treats or abuses fellow prisoners while in a position of authority.

You must always resist the enemy's attempts to break down your faith in fellow prisoners. The enemy will use various tactics to attempt to shatter the unity of the prisoners. A prisoner may be singled out for special sessions with the captors. The captors may appoint one person as their representative among the prisoners. The captors may take one of the prisoners away from the group for an extended period of time and then return the prisoner with no explanation. All of these tactics are designed to destroy the prisoners' faith in one another. If the captors are successful, mistrust will grow, individuals will lose faith in each other, and the group will disintegrate into a dog-eat-dog struggle for survival.

All military prisoners in the camp are subject to the lawful orders of the senior officer present, just as they would be aboard ship. Should you happen to be senior, you will assume command. An organization must be established to carry out activities such as care of the sick and wounded, camp sanitation, and escape and resistance planning. Normally, your captors will not permit this organization to function openly, so it will have to be established secretly. Good leadership and discipline are keys to survival.

ARTICLE V

> When questioned, should I become a prisoner of war, I am required to give name, rank, service number, and date of birth. I will evade answering further questions to the utmost of my ability. I will make no oral or written statements disloyal to my country and its allies or harmful to their cause.

The Geneva Convention requires that you give your name, rate, service number, and date of birth when questioned by the enemy. Any further information, although seemingly of no importance, could be of value to the enemy in attempts to break your spirit or to be used against fellow prisoners. The Geneva Convention also forbids physical and mental torture of prisoners. However, since the Korean conflict, Communist forces have resorted to such tactics in their attempts to gain information and to get prisoners to collaborate.

The time will come when you will have to say something other than your name, rate, service number, and date of birth, if only to avoid further questioning. Do not make up stories. You may fool the interrogator for a short time; but eventually the enemy will find your stories to be false and may resort to harsher methods. A simple "I don't know" will often suffice.

Oral or written confessions to "war crimes," surrender or peace appeals, and statements critical of the United States are forbidden. They could pose a danger to you and your fellow prisoners and damage our country. Any confession becomes grounds for trying a prisoner as a war criminal if the enemy so desires.

ARTICLE VI

> I will never forget that I am an American, fighting for freedom, responsible for my actions, and dedicated to the principles which made my country free. I will trust in my God and in the United States of America.

In the event you are unable to avoid capture, remember the first sentence of the first article: "I am an American, fighting for freedom." Those seven words signify your faith and confidence in your God, your country, your service, and yourself.

As a member of the armed forces of the United States, you are always subject to the *UCMJ*, even as a prisoner of war. After return to friendly forces or escape, you will be investigated to determine the circumstances of your capture and your conduct as a prisoner. If you have done your utmost to uphold the principles of this code, you need not worry about such an investigation. You may even be able to give valuable information that will help future prisoners.

Many Americans have been prisoners of war, and they all agree that the life of a POW is a hard one. A few of those POWs were either unprepared to resist or lacked the ability to maintain their basic faith and loyalty under extreme pressure. These Americans succumbed to the enemy's efforts and acted in a manner detrimental to their country, their fellow service members, and themselves. Remember, you will have to live the rest of your life remembering your conduct under stress. The majority of American prisoners have behaved honorably and with pride because they believed in and adhered to the principles and strength on which our country was founded.

NAVY LEADER DEVELOPMENT PROGRAM (NAVLEAD)

Through research, the Navy has identified various leadership skills to distinguish the differences between superior performers and average performers as Navy leaders. These skills, or characteristics, are sometimes referred to as competencies.

The Navy offers a variety of 1-week Navy Leader Development Program (NAVLEAD) courses designed to train students to apply these specific leadership skills in various job situations. The NAVLEAD courses are available to E-5 through O-6 personnel. All E-6 and E-7 personnel are required to complete an NAVLEAD course to be eligible for advancement to E-7 and E-8.

The NAVLEAD course for division officers is based on the following 13 characteristics:

1. TAKES INITIATIVE: Demonstrates willingness to go beyond what the situation requires and to act before being asked.
2. FOLLOWS THROUGH: Monitors what people and the organization are doing to ensure quality and to maintain standards.

3. DEMONSTRATES SELF-CONFIDENCE: Projects an ability to succeed, to reach challenging goals, or to overcome obstacles.
4. SEEKS INFORMATION: Gathers data from many sources to ensure actions have potential for success.
5. PLANS: Sets goals and organizes own and others' work to accomplish these efficiently.
6. MANAGES TIME EFFICIENTLY: Develops ways of accomplishing multiple goals in a limited amount of time.
7. ENFORCES HIGH STANDARDS: Models, communicates, and upholds the best criteria for performance.
8. PROMOTES GOOD WORKING RELATIONSHIPS WITH THE CHIEF: Effectively communicates with and delegates work to the chief petty officer.
9. DEMONSTRATES CONCERN FOR SUBORDINATES: Listens to subordinates and works to meet their needs.
10. ACCEPTS RESPONSIBILITY: Shows willingness to make difficult decisions and face the consequences.
11. INFLUENCES: Motivates or persuades others to act or to accept policy or position.
12. COMMUNICATES: Demonstrates verbal and written skills in presenting ideas and information to others.
13. PROBLEM-SOLVES: Analyzes situations to determine causes and acts to overcome obstacles and reach solutions.

SUMMARY

Leadership in the Navy is the process of influencing people to effectively accomplish the mission of the unit. Good leadership is essential in today's military organization. Discipline must be used in the military to reinforce the leadership structure.

You may see your leadership role as encouraging your people to assume personal initiative and a more active role in meeting their job responsibilities. This approach requires you to have leadership skills in dealing with people to get them to cooperate and willingly participate.

When you blend your personal leadership skills with your official authority, you increase the productivity of your group. Successful leadership occurs when you cause your subordinates to accept orders without any undue exertion of authority or force on your part. To be a leader, you must have followers; to be a good leader, you must have willing followers.

A key concept of leadership is flexibility. You must be flexible to deal with the many facets of your job, such as job deadlines and the capabilities of your people. Your leadership style should be flexible enough to fit each situation.

For you to perform all work tasks yourself is impractical and impossible; therefore, you must depend on your people to a large degree to do a good job. As you work closely with your people to get a job done, you will quickly recognize the need for cooperation and effort from your people. Seek to know and understand your people. Try to build a spirit of teamwork and high morale so that they will willingly help you achieve the work goal.

As a leader you can practice leadership in many ways. You have several leadership styles to choose from. No one leadership style is right or wrong; the appropriate style depends on the people being led, the situation, and the requirements of the job.

Remember, leadership is more than a list of do's and don'ts. It is a frame of mind or an attitude that you develop in dealing with people, your responsibilities, and your role in the chain of command.

Also remember that by applying the principles of management, you can make sound leadership decisions with skill and confidence. Good managers come in many different forms and manage with a variety of styles. Whatever your personality, you can become a good manager. To do so, you have to learn the techniques of good leadership and concentrate on training yourself to use them. You must realize that the job of managing can be very satisfying for those who are prepared to meet its challenges but frustrating for those who have not mastered the basic leadership techniques.

REFERENCES

Barnett, Robin, "A Guide for Single Parents," *All Hands* 857 (August 1988): 36-37.

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Military Requirements for Chief Petty Officer, NAVEDTRA 12047, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Military Requirements for Petty Officer First Class, NAVEDTRA 12046, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Navy Affirmative Action Plan (NAAP), OPNAVINST 5354.3B, Office of the Chief of Naval Operations, Washington, D.C., 1989.

Navy Equal Opportunity (EO) Manual, OPNAVINST 5354.1C, Office of the Chief of Naval Operations, Washington, D.C., 1989.

Navy Fraternization Policy, OPNAVINST 5370.2, Office of the Chief of Naval Operations, Washington, D.C., 1989.

Sexually Transmitted Disease (STD) Clinical Management Guidelines, NAVMEDCOMINST 6222.1, Department of the Navy, Naval Medical Command, Washington, D.C., 1987.

SUGGESTED READING

Mack, W.P. and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

Noel, J.V., *Division Officer's Guide*, 8th ed., Naval Institute Press, Annapolis, Md., 1986.

MASTER-AT-ARMS

THE MASTER-AT-ARMS RATING IS BY NO MEANS A MODERN INNOVATION. NAVAL RECORDS SHOW THAT THESE "SHERIFFS OF THE SEA" WERE KEEPING ORDER AS EARLY AS THE REIGN OF CHARLES I OF ENGLAND. AT THE TIME, THEY WERE CHARGED WITH KEEPING THE SWORDS, PISTOLS, CARBINES, AHD MUSKETS IN GOOD WORKING ORDER AS WELL AS ENSURING THAT THE BANDOLIERS WERE FILLED WITH FRESH POWDER BEFORE COMBAT.

BESIDES BEING CHIEFS OF POLICE AT SEA, THE SEA CORPORALS, AS THEY WERE CALLED IN THE BRITISH NAVY, HAD TO BE QUALIFIED IN CLOSE ORDER FIGHTING UNDER ARMS AND ABLE TO TRAIN SEAMEN IN HAND-TO-HAND COMBAT. IN THE DAYS OF SAIL, THE MAAs WERE TRULY "MASTERS AT ARMS." THE MASTER-AT-ARMS IN THE U.S. NAVY CAN TRACE THE BEGINNING OF THIS RATE TO THE UNION NAVY OF THE CIVIL WAR.

CHAPTER 6

GOVERNING REGULATIONS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the articles from *Navy Regulations* that all Navy personnel should know.
2. Identify the contents of various articles from *Navy Regulations.*
3. Trace the development of the *Uniform Code of Military Justice.*
4. Describe the contents of article 137 of the *Uniform Code of Military Justice.*
5. Identify the contents of the articles that are explained in article 137 of the *Uniform Code of Military Justice.*
6. Describe the proceedings of nonjudicial punishment and the punishments that may be awarded at nonjudicial punishment proceedings.
7. Describe the three types of courts-martial.
8. Describe the purpose of the *Standard Organization and Regulations of the U.S. Navy.*
9. Identify the contents of various articles of the *Standard Organization and Regulations of the U.S. Navy.*

Figure 6-1 shows the three official sources that set forth the basic disciplinary laws for the Navy. These sources are the *Uniform Code of Military Justice* (*UCMJ*) (contained in the *Manual for Courts-Martial United States, 1984*, Revised Edition); *United States Navy Regulations, 1990* (commonly called *Navy Regs*); and the *Standard Organization and Regulations of the U.S. Navy.*

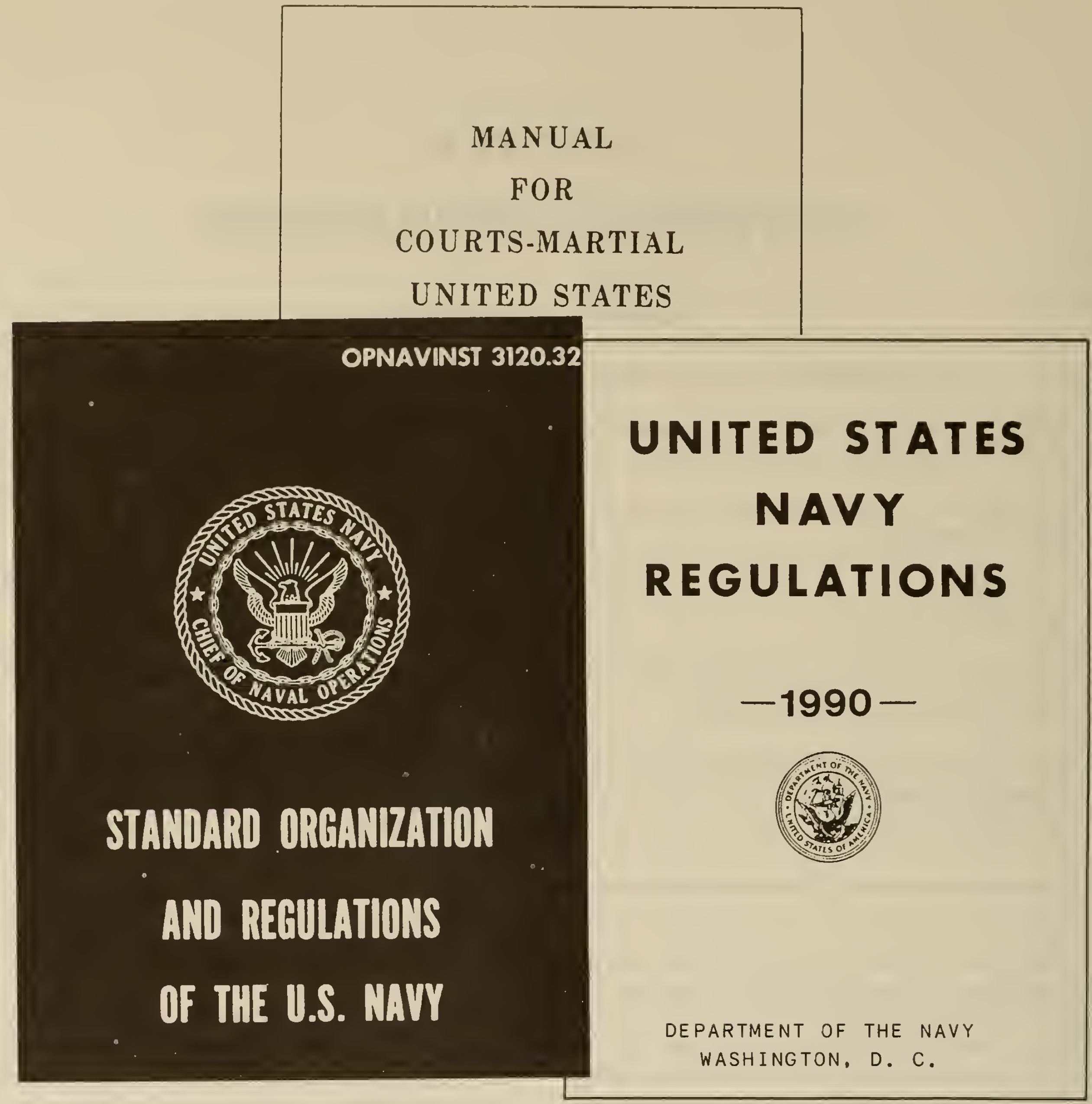
You probably have heard the saying, "Ignorance of the law is no excuse." Obviously, this idea must govern; otherwise, personnel could excuse illegal conduct merely by saying they did not know there was a law against it. When you entered the Navy, you agreed to abide by the Navy's laws and regulations. Naturally, you will need time to learn all the rules you must obey. However, you should make every effort to learn them as soon as possible to avoid embarrassing situations and disciplinary action.

U.S. NAVY REGULATIONS

The 12 chapters of *Navy Regs* describe the authority and responsibilities of the offices within the Department of the Navy. They also describe the regulations concerning the procedures, authority, and command of these offices. *Navy Regs* also covers honors and ceremonies, the rights and responsibilities of persons in the Department of the Navy, and the purpose and force of these regulations.

Each ship and station has complete copies of *Navy Regs* available to all personnel. Also available is an excellent nonresident training course entitled *Navy Regulations*, NAVEDTRA 10740-C, which you are encouraged to complete. Your educational services officer (ESO) can help you order this course.

The following section lists articles (with a condensation of their text, if appropriate) from *United States Navy Regulations, 1990*, that all



MANUAL
FOR
COURTS-MARTIAL
UNITED STATES

OPNAVINST 3120.32

STANDARD ORGANIZATION
AND REGULATIONS
OF THE U.S. NAVY

UNITED STATES
NAVY
REGULATIONS

—1990—

DEPARTMENT OF THE NAVY
WASHINGTON, D. C.

Figure 6-1.—Three official sources for basic disciplinary laws.

personnel in the Navy should know. This listing serves only as a starting place for you to learn about Navy regulations. You are responsible for learning and obeying all regulations. These regulations are not punitive articles, but laws under which the Navy operates. Many exist for your own protection. Failure to obey any regulation subjects the offender to charges under article 92, *UCMJ* (Failure to obey order or regulation).

In the following excerpts the first two digits of the article number indicate the chapter of *Navy Regs* from which the article is taken. When the article itself is self-explanatory, the article is presented in block quotation exactly as stated in *Navy Regs*; no further explanation is given. Articles that are lengthy and, in some cases, difficult to interpret are paraphrased to give you a brief overview of the contents of the article.

0818. Publishing and Posting Orders and Regulations

1. In accordance with Article 137 of the *Uniform Code of Military Justice*, the articles specifically enumerated therein shall be carefully explained to each enlisted person:

   a. At the time of entrance on active duty or within six days thereafter;

   b. Again, after completion of six months active duty; and

   c. Again, upon the occasion of each reenlistment.

2. A text of the articles specifically enumerated in Article 137 of the *Uniform Code of Military Justice* shall be posted in a conspicuous place or places, readily accessible to all personnel of the command.

3. Instructions concerning the *Uniform Code of Military Justice* and appropriate articles of *Navy Regulations* shall be included in the training and educational program of the command.

4. Such general orders, orders from higher authority, and other matters which the commanding officer considers of interest to the personnel or profitable for them to know shall be published to the command as soon as practicable. Such matters shall also be posted, in whole or in part, in a conspicuous place or places readily accessible to personnel of the command.

5. Upon the request of any person on active duty in the armed services, the following publications shall be made available for that person's personal examination:

   a. A complete text of the *Uniform Code of Military Justice*,

   b. *Manual for Courts-Martial*,

   c. *Navy Regulations*,

   d. *Manual of the Judge Advocate General*,

   e. *Marine Corps Manual* (for Marine Corps personnel),

   f. *Naval Military Personnel Manual* (for Navy personnel) or *Marine Corps Personnel Manual* (for Marine Corps personnel).

0917. Dealings With Foreigners

When in foreign ports, personnel shall respect local laws, customs, ceremonies, and regulations; display courtesy and moderation; and cultivate a feeling of good will and mutual respect.

1020. Exercise of Authority

> All persons in the naval service on active service, those on the retired list with pay, and transferred members of the Fleet Reserve and the Fleet Marine Corps Reserve are at all times subject to naval authority. While on active service they may, if not on leave of absence except as noted below, on the sick list, taken into custody, under arrest, suspended from duty, in confinement, or otherwise incapable of discharging their duties, exercise authority over all persons who are subordinate to them.

1021. Authority Over Subordinates

This article gives officers the authority necessary to perform their duties.

1023. Abuse of Authority

> Persons in authority are forbidden to injure their subordinates by tyrannical or capricious conduct, or by abusive language.

1024. Contradictory and Conflicting Orders

An enlisted person who receives an order that annuls, suspends, or modifies one received from another superior shall immediately relate this fact to the superior from whom the last order was received. If, after receiving this information, the superior from whom the last order was received should insist upon the execution of that order, it shall be obeyed. The person receiving and executing such order shall report the circumstances as soon as practicable to the superior from whom the original order was received.

1033. Authority in a Boat

This article provides the senior line officer eligible for command at sea the authority over all persons embarked in a boat. It also delegates the officer responsibility for the safety and management of the boat.

1037. Authority of Warrant Officers, Non-Commissioned Officers, and Petty Officers

> Chief warrant officers, warrant officers, non-commissioned officers, and petty officers shall have, under their superiors, all necessary authority for the proper performance of their duties, and they shall be obeyed accordingly.

1038. Authority of a Sentry

> A sentry, within the limits stated in his or her orders, has authority over all persons on his or her post.

1039. Authority of Juniors To Issue Orders to Seniors

No member of the armed forces is authorized by virtue of his or her rank alone to give any order or grant any privilege, permission, or liberty to any officer senior to him or her. A member is not required to receive such order, privilege, permission, or liberty from a junior, unless such junior is at the time:

- In command of the ship or other command to which the senior is attached.
- In command or direction of the military expedition or duty on which such senior is serving.
- An executive officer executing an order of the commanding officer.

1111. Pecuniary Dealings With Enlisted Persons

No officer should have any dealings involving money with enlisted persons except as may be required in the performance of the officer's duties or as involved in the sale of personal property. An officer may be designated by superior authority to accept deposits from enlisted personnel for the purpose of safeguarding these funds under emergency or operational situations.

1112. Lending Money and Engaging in a Trade or Business

Naval personnel shall not lend money to another member of the armed services at an interest rate, for the period of the loan, that exceeds 18 percent simple interest per year. Personnel may not act as a salesperson or an agent or engage in a business on board without permission of the commanding officer.

1115. Report of Fraud

Any suspicions of fraud, collusion, or improper conduct in matters concerning supplies and repairs should be reported to proper authority.

1125. Inspection of the Record of a Person in the Naval Service

A person's naval record is maintained by the Chief of Naval Personnel or the Commandant of the Marine Corps. The record must be available for inspection by that person or an authorized agent designated in writing by that person.

1130. Officer's Duties Relative to Laws, Orders and Regulations

All officers in the naval service shall acquaint themselves with and obey the laws, regulations, and orders relating to the Department of the Navy. They shall also, as far as their authority extends, enforce these laws, regulations, and orders. They shall faithfully and truthfully discharge the duties of their office to the best of their ability in conformance with existing orders and regulations and their solemn profession of the oath of office. In the absence of instructions, they shall act in conformity with the policies and customs of the service to protect the public interest.

1132. Compliance With Lawful Orders

> All persons in the naval service are required to obey readily and strictly, and to execute promptly, the lawful orders of their superiors.

1133. Language Reflecting on a Superior

Language tending to diminish the confidence and respect due superior officers shall not be used.

1134. Exchange of Duty

An assigned duty may not be changed with another person (such as trading watches) without permission from proper authority.

1137. Obligation To Report Offenses

All offenses observed should be reported to the proper authority.

1138. Responsibilities Concerning Marijuana, Narcotics, and Other Controlled Substances

Personnel may not bring on board any naval activity, or have in their possession at any time, marijuana, narcotics, or any controlled substances.

1143. Report of a Communicable Disease

Personnel should report any suspicions of communicable disease to their medical representative.

1144. Immunization

Personnel must take the immunizations prescribed for them as scheduled.

1145. Service Examinations

No persons in the Navy, without proper authority, should have or attempt to have in their possession, any examination papers, any part or copy thereof, or any examination answer sheets. They also shall not obtain, sell, publish, give, purchase, receive, or reproduce any of these examination products.

1150. Redress of Wrong Committed by a Superior

A person who believes that a superior exercises authority in an unjust or cruel manner or is guilty of misconduct should submit a complaint to his or her commanding officer.

1151. Direct Communication With the Commanding Officer

> The right of any person in the naval service to communicate with the commanding officer in a proper manner, and at a proper time and place, shall not be denied or restricted.

1154. Communications to the Congress

Personnel may not, in their official capacity, apply to Congress for congressional action of any kind or provide information requested by Congress. The only exception to this regulation is such communication as authorized by the Secretary of the Navy or as provided by law.

1155. Dealings With Members of Congress

All persons may write to their congressmen on any subject as long as they do not violate security regulations or the law.

1156. Forwarding Individual Requests

> Requests from persons in the naval service shall be acted upon promptly. When addressed to higher authority, requests shall be forwarded without delay. The reason should be stated when a request is not approved or recommended.

1157. Leave and Liberty

> Leave and liberty will be granted to the maximum extent practicable.

1158. Quality and Quantity of Rations

Meals served in the general mess shall be sampled regularly by an officer detailed by the commanding officer for that purpose. Should this officer find the quality or quantity of the food unsatisfactory or should any member of the mess object to the quality or quantity of the food, the commanding officer shall be notified and shall take appropriate action.

1159. Possession of Weapons

Personnel may not have any weapons or explosives in their possession without proper authority.

1160. Possession of Government Property

Personnel shall not possess, without permission, any property of the United States except what is needed in the performance of their duty.

1162. Alcoholic Liquors

The personal possession of any alcoholic liquors aboard any ship is prohibited. The transportation aboard ship of alcoholic liquors for personal use ashore is authorized subject to the discretion of, and under regulations established by, the commanding officer.

UNIFORM CODE OF MILITARY JUSTICE

Until 1951 the various branches of our armed forces operated under different military codes. The Army and Air Force were guided in the administration of discipline and in legal processes by the Army's *Articles of War.* The Navy was guided by the *Articles for the Government of the Navy* (''Rocks and Shoals''); and the Coast Guard, by the *Disciplinary Laws of the Coast Guard.* Not surprisingly, then, an act considered an offense in the eyes of the Navy may not have been judged so by the Army. Even if an act was a breach of discipline in all branches of the armed forces, the type of trial and severity of punishment awarded varied.

A standardized code of military justice was recognized as a logical and necessary unification measure. Therefore, then Secretary of Defense, James Forrestal, appointed an interservice committee to study the measure. After an intensive study, the committee drafted what is now known as the *Uniform Code of Military Justice* (*UCMJ*). The *UCMJ* was passed by Congress on 5 May 1950, signed into law by the President, and became effective 31 May 1951.

The *Manual for Courts-Martial, United States, 1951* (*MCM*) consolidated and standardized varying military legal procedures. Effective 31 May 1951, the same date as the original *UCMJ*, it became the new touchstone of military justice. Case decisions of the Court of Military Appeals and changes in courts-martial procedures have made necessary several changes to the original manual. The current edition is the *Manual for Courts-Martial 1984.*

ARTICLES TO BE EXPLAINED

Congress and the Navy have taken steps to ensure you will know the disciplinary laws and regulations most likely to affect your daily life. Article 137 of the *UCMJ* states that certain articles of the Code must be explained carefully to every enlisted person at certain intervals. They must be explained at the time the person enters on active duty, after 6 months of active duty, and when the person reenlists. In general, these articles concern the following topics:

Article	Subject
2	Persons subject to the Code
3	Right to try certain persons even though they have been separated from service
7-14	Apprehension and restraint
15	Nonjudicial punishment (captain's mast)
25	Membership of courts-martial
27	Appointment of counsel to courts-martial
31	Compulsory self-incrimination prohibited
37	Unlawful influence on the court
38	Duties of counsel
55	Certain punishments prohibited
77-134	Punitive articles
137	Articles that must be explained
138	Complaints of wrongs
139	Payment for injury or loss of property

Navy Regulations supplements article 137 of the *UCMJ* by requiring each command to post the text of those articles in the preceding list in a conspicuous place. *Navy Regs* also requires each command to include these and other appropriate articles of *Navy Regulations* in the command's training and education program. Copies of the complete *UCMJ* (140 articles), *Navy Regulations*, and other general orders are available to any person desiring to read them.

EXCERPTS FROM THE UCMJ

The purpose of this section is not to make you an expert on the *Uniform Code of Military*

Justice, but to give you an overview of each of the articles prescribed by article 137. Those articles which are self-explanatory are shown in block quotation as stated in the *UCMJ*; no further explanation is given. Some of the more lengthy articles have been edited to present only portions of these articles. Articles that are lengthy and, in some cases, difficult to interpret are paraphrased to give you a brief overview of what the article contains.

The *UCMJ* uses the terms "man" or "he" to refer to all persons in the military service.

Art. 2. Persons Subject to This Code

> The following persons are subject to this code:
>
> > (1) Members of a regular component of the armed forces, including those awaiting discharge after expiration of their terms of enlistment; volunteers from the time of their muster or acceptance into the armed forces; inductees from the time of their actual induction into the armed forces; and other persons lawfully called or ordered into, or to duty in or for training in, the armed forces, from the dates when they are required by the terms of the call or order to obey it.

This article includes all persons on active duty, certain retired persons, prisoners, and prisoners of war.

You should specifically note the following provisions of article 2:

- Any person serving a sentence imposed by a court-martial remains subject to the *UCMJ*. Thus, a prisoner who is serving a court-martial sentence may be tried for a crime committed while a prisoner. This applies even though the prisoner's term of enlistment has expired at the time of commission of the crime.

- A reservist on inactive-duty training is subject to the *UCMJ* when (a) the training is authorized by written orders; (b) the orders are voluntarily accepted by the reservist; and (c) the orders specify that the reservist is subject to the *UCMJ*.

- A reservist ordered into the active military service is subject to the *UCMJ* beginning on the date specified in the orders for the reservist to report for active duty.

- The United States Supreme Court has held unconstitutional the exercise of court-martial jurisdiction over civilians in time of peace.

Art. 3. Jurisdiction To Try Certain Personnel

Article 3 states that a person may be tried by court-martial, even after leaving the service, for offenses committed while under the *UCMJ*.

Art. 7. Apprehension

> (a) Apprehension is the taking of a person into custody.
>
> (b) Any person authorized under regulations governing the armed forces to apprehend persons subject to this code or to trial thereunder may do so upon reasonable belief that an offense has been committed and that the person apprehended committed it.
>
> (c) Commissioned officers, warrant officers, petty officers, and noncommissioned officers have authority to quell quarrels, frays, and disorders among persons subject to this code and to apprehend persons subject to this code who take part therein.

In addition to those listed in 7(c), security police, military police, shore patrol, and others designated to perform guard or police duties may apprehend persons subject to the *UCMJ*.

Enlisted persons performing police duties should not apprehend an officer except on specific orders of a commissioned officer. The exception is when such apprehension is necessary to prevent disgrace to the service, the commission of a serious offense, or the escape of one who has committed a serious offense. In such cases, the apprehending individual immediately notifies the officer to whom he or she is responsible or an officer of the security police, military police, or shore patrol.

An apprehension is effected by clear notification to the offender that he or she is thereby taken into custody. The order may be oral or written.

A clear distinction exists between the authority to apprehend and the authority to arrest or confine (article 9). Any person empowered to apprehend an offender, however, is authorized to secure the custody of an alleged offender until proper authority may be notified.

Art. 8. Apprehension of Deserters

> Any civil officer having authority to apprehend offenders under the laws of the United States or of a State, Territory, Commonwealth, or possession, or the District of Columbia may summarily apprehend a deserter from the armed forces and deliver him into the custody of those forces.

When a military service sends out a description of a deserter, with a request for the deserter's apprehension, the notice gives civil officers the authority to apprehend the person.

Art. 9. Imposition of Restraint

> (a) Arrest is the restraint of a person by an order, not imposed as a punishment for an offense, directing him to remain within certain specified limits. Confinement is the physical restraint of a person.
>
> (b) An enlisted member may be ordered into arrest or confinement by any commissioned officer by an order, oral or written, delivered in person or through other persons subject to this code. A commanding officer may authorize warrant officers, petty officers, or noncommissioned officers to order enlisted members of his command or subject to his authority into arrest or confinement.
>
> (c) A commissioned officer, a warrant officer, or a civilian subject to this code or to trial thereunder may be ordered into arrest or confinement only by a commanding officer to whose authority he is subject, by an order, oral or written, delivered in person or by another commissioned officer. The authority to order such persons into arrest or confinement may not be delegated.
>
> (d) No person may be ordered into arrest or confinement except for probable cause.
>
> (e) Nothing in this article limits the authority of persons authorized to apprehend offenders to secure the custody of an alleged offender until proper authority may be notified.

Art. 10. Restraint of Persons Charged With Offenses

> Any person subject to this code charged with an offense under this code shall be ordered into arrest or confinement, as circumstances may require; but when charged only with an offense normally tried by a summary court-martial, he shall not ordinarily be placed in confinement. When any person subject to this code is placed in arrest or confinement prior to trial, immediate steps shall be taken to inform him of the specific wrong of which he is accused and to try him or to dismiss the charges and release him.
>
> As the words "normally" and "ordinarily" imply, the provisions of this article may not apply in exceptional cases. Whether to confine, arrest, or restrict a person in lieu of arrest is within the discretion of the officer having the power to do so. What this article says, in effect, is that in most instances confinement is not necessary for persons accused of minor offenses.

Art. 11. Reports and Receiving of Prisoners

> (a) No provost marshall, commander or a guard, or master-at-arms may refuse to receive or keep any prisoner committed to his charge by a commissioned officer of the armed forces, when the committing officer furnishes a statement, signed by him, of the offense charged against the prisoner.
>
> (b) Every commander of the guard or master-at-arms to whose charge a prisoner is committed shall, within twenty-four hours after that commitment or as soon as he is relieved from guard, report to the commanding officer the name of the prisoner, the offense charged against him, and the name of the person who ordered or authorized the commitment.

An arrest is imposed by notification to the person to be arrested that he or she is under arrest and of the limits of the arrest. The order of arrest may be oral or written. A person to be confined is placed under guard and taken to the place of confinement.

Art. 12. Confinement With Enemy Prisoners Prohibited

> No member of the armed forces may be placed in confinement in immediate association with enemy prisoners or other foreign nationals not members of the armed forces.

Art.13. Punishment Prohibited Before Trial

> Subject to . . . Article 57, no person, while being held for trial or the result of trial, may be subjected to punishment or penalty other than arrest or confinement upon the charges pending against him, nor shall the arrest or confinement imposed upon him be any more rigorous than the circumstances require to ensure his presence, but he may be subjected to minor punishment during that period for infractions of discipline.

The minor punishment permitted under article 13 includes that authorized for violations of discipline set forth by the place in which the person is confined. The article does not prevent a person from being required to do ordinary cleaning or policing or from taking part in routine training and duties not involving the bearing of arms.

Art. 14. Delivery of Offenders to Civil Authorities

> (a) Under such regulations as the Secretary concerned may prescribe, a member of the armed forces accused of an offense against civil authority may be delivered, upon request, to the civil authority for trial.
>
> (b) When delivery under this article is made to any civil authority of a person undergoing sentence of a court-martial, the delivery, if followed by conviction in a civil tribunal, interrupts the execution of the sentence of the court-martial, and the offender after having answered to the civil authorities for this offense shall, upon the request of competent military authority, be returned to military custody for the completion of his sentence.

Art. 15. Commanding Officer's Nonjudicial Punishment

Article 15 explains commanding officer's nonjudicial punishment. For some offenses, commanders may offer an article 15 instead of court-martial. If accepted, the commander may impose punishment as permitted by regulations (usually at captain's mast). Receiving an article 15 is not a conviction, and it does not give a person a criminal record. This article will be explained in greater detail later in this chapter under "Nonjudicial Punishment."

Art. 25. Who May Serve on Courts-Martial

Any commissioned officer, including commissioned warrant officers, on active duty with the armed forces is eligible to serve on a court-martial. Any warrant officer on active duty with the armed forces is eligible to serve on a general court-martial (GCM) and special court-martial (SPCM) for the trial of any person, other than a commissioned officer. Any enlisted person on active duty with the armed forces who is not a member of the same unit as the accused is eligible to serve on general and special courts-martial for the trial of enlisted persons. However, enlisted personnel may serve as a member of a court-martial only if, before the assembling of such court, the accused has personally requested in writing that enlisted personnel serve as members of the court.

Art. 27. Detail of Trial Counsel and Defense Counsel

Each general and special court-martial must have a trial counsel and a defense counsel, with such assistants as the convening authority deems necessary. The terms "counsel," "trial counsel," and "defense counsel" should be interpreted to mean the detailed counsel named in the convening order. The term ''individual counsel'' refers to the military counsel selected by the accused or the civilian counsel provided by the accused at his or her own expense.

The trial counsel and defense counsel detailed for a general court-martial must have equivalent legal qualifications. Each must be a judge advocate of the Army, Navy, Air Force, or Marine Corps who is a graduate of an accredited law school or is a member of the bar of a federal court or of the highest court of a state. Each must be certified as competent to perform such duties by the Judge Advocate General of the armed forces of which he or she is a member. A civilian counsel must be a member of the bar of a federal court or of the highest court of a state.

In a special court-martial, the accused must be afforded the opportunity to be represented by counsel qualified under article 27, *UCMJ*, unless such counsel cannot be obtained because of the geographical location or pressing military requirements. If qualified defense counsel cannot be obtained or if the accused has declined qualified counsel, the detailed defense counsel must meet the following requirements. If the detailed defense counsel does not meet the following requirements, an SPCM is not legally constituted:

- If the detailed trial counsel or any assistant trial counsel is qualified to act as counsel before a GCM, the detailed defense counsel must be a person similarly qualified; or

- If the detailed trial counsel or any assistant trial counsel is a judge advocate or a member of the bar of a federal court or the highest court of a state, the detailed defense counsel must be one of the same.

Art. 31. Compulsory Self-Incrimination Prohibited

This article explains your right not to provide evidence against yourself (self-incrimination), a right given to all citizens under the Fifth Amendment to the U.S. Constitution. The following statements explain your rights against self-incrimination:

- You cannot be forced to answer questions or give evidence that may help to prove your guilt.

- You must be told the nature of the offense of which you are accused; that you do not have to make any statement; and that if you do, it can be used against you.

- You cannot be forced to make a statement or give evidence in a trial that is not related to the case or that may degrade you.

- No statement obtained from you by threats or trickery can be used against you in a court-martial trial.

Art. 37. Unlawfully Influencing Action of Court

> (a) No authority convening a general, special, or summary court-martial, nor any other commanding officer, may censure, reprimand, or admonish the court or any member, military judge, or counsel thereof, with respect to the findings or sentence adjudged by the court, or with respect to any other exercise of its or his functions in the conduct of the proceeding. No person subject to this code may attempt to coerce or, by any unauthorized means, influence the action of a court-martial or any other military tribunal or any member thereof, in reaching the findings or sentence in any case, or the action of any convening, approving, or reviewing authority with respect to his judicial acts.

Article 37 is designed to ensure that every court, its members, and its officers shall be completely free to fulfill their functions without fear of reprisal.

Art. 38. Duties of Trial Counsel and Defense Counsel

The trial counsel prosecutes in the name of the United States and, under the direction of the court, prepares the record of proceedings. The duties of the trial counsel might be compared to those of a civil district attorney. The prosecution must prove beyond a reasonable doubt the guilt of the accused for each offense charged. Of course, such burden of proof is relieved by a plea of guilty. The many duties of the trial counsel vary widely beginning at the time of assignment to the trial. The duties change throughout the preparation for trial, the trial itself, and the preparation and disposition of the record of trial.

All accused persons have the right to be represented before special and general courts-martial by defense counsel. This counsel may be a civilian or military lawyer selected by the accused or may be a defense counsel appointed by the convening authority. If a civilian counsel is selected, the accused must pay the counsel's expenses. If the accused prefers to select counsel, the detailed counsel and assistant counsel act as associate counsel if the accused so desires; otherwise, they may be excused.

Some of the duties of the defense counsel are as follows:

- To advise the accused of the right to have enlisted membership on the court

- To explain the meaning and effect of a guilty plea, if appropriate

- To advise the accused of the right to introduce evidence; to testify or to remain silent; if after findings of guilty are announced, to make an unsworn statement and to introduce evidence as to matters in extenuation and mitigation; and to assert any proper defense or objection

Art. 55. Cruel and Unusual Punishments Prohibited

This article prohibits any cruel or unusual punishment. In particular, courts-martial are forbidden to award sentences that include whipping, branding, marking, or tattooing the body. The use of irons is also prohibited, except for the purpose of safe custody.

PUNITIVE ARTICLES OF THE UCMJ

The punitive articles of the *UCMJ* are those numbered 77 through 134. They are the laws of Congress telling you what you must do and must not do, under pain of punishment.

What about civil laws? Can you be given military punishment for nonmilitary offenses? Yes, you can. For example, the only *UCMJ* regulations against drunkenness are for drunken driving and being drunk on duty. Many civilian communities, though, have laws against drunkenness in public. If you are found guilty in civil court and spend time in jail for being drunk in public, the Navy can try you for being absent without leave (*UCMJ*, article 86) and for bringing discredit upon the Navy (*UCMJ*, article 134).

If you willfully refuse to pay just debts, you will be warned to pay them by your commanding officer. Continued failure to pay your debts can lead to an undesirable type of discharge. The Navy has no use for people who do not exhibit integrity and honesty. On the other hand, if you are being gouged by unscrupulous dealers, see your legal officer for assistance.

The punitive articles that follow are those you are required to know. If you have any questions about their meaning, ask your division officer for guidance.

Art. 77. Principals

The mere fact that a person is at the scene of a crime does not make the person a principal. To be a principal of a crime, the person must be guilty of an intent to aid or encourage the persons who committed the crime.

A person who witnesses a crime can be a principal. Evidence must show the witness had a duty to interfere and the witness's noninterference was intended to operate and did operate to encourage or protect the perpetrator.

A person may be a principal even though not at the scene of the crime if he or she commanded, advised, or obtained another person to commit an offense.

Art. 78. Accessory After the Fact

> Any person subject to this code who, knowing that an offense punishable by this code has been committed, receives, comforts, or assists the offender in order to hinder or prevent his apprehension, trial, or punishment shall be punished as a court-martial may direct.

A person who voluntarily gives an escaped prisoner provisions that permit him or her to avoid pursuers becomes an accessory after the fact to the prisoner's escape. Provisions include transportation, clothing, money, or any other necessities.

Art. 79. Conviction of Lesser Included Offense

> An accused may be found guilty of an offense necessarily included in the offense charged or of an attempt to commit either the offense charged or an offense necessarily included therein.

A military tribunal may only try a person who has been charged with violating a particular article or articles of the *UCMJ*. Quite simply, if a person committed what is considered a crime but the code did not include that crime in one of its punitive articles, no court-martial could try him or her. Articles 77, 78, 80, 81, and 82 of the code, thus, encompass persons who may not have taken an active part in or successfully committed an offense. These articles permit persons to be tried for being an accomplice in a crime, even though the crime isn't included in the *UCMJ*.

Article 79 goes a step further by authorizing the finding of guilty of a lesser included offense when a finding of guilty cannot be sustained for the offense charged. For this reason, a charge has three permissible findings: guilty; not guilty; not guilty, but guilty of a violation of article ________.

The key words in article 79 are "offense necessarily included in the offense charged." For example, a violation of article 85 (Desertion) "with intent to remain away therefrom permanently"—invariably is also an uncharged violation of the lesser charge of article 86 (Absent without leave). Proving that an accused deserter had no intention of ever returning might be impossible. But the date the person absented himself or herself and the date the person (was) returned to military jurisdiction are clear. Thus, many deserters are, for lack of proof of intent, found not guilty, but guilty of a violation of article 86.

Other examples of what generally are held to be lesser included offenses contained in a principal offense include the following:

Article	Principal Offense	Article	Lesser Included Offense
83	Fraudulent enlistment, appointment, or separation	3	Jurisdiction to try certain personnel
94	Mutiny	92	Failure to obey lawful order
94	Sedition	116	Breach of the peace
95	Breach of arrest	134	Breach of restriction
118	Murder	119	Manslaughter
122	Robbery	121	Larceny
124	Maiming	128	Assault with a dangerous weapon

Art 80. Attempts

(a) An act, done with specific intent to commit an offense under this code, amounting to more than mere preparation and tending, even though failing, to effect its commission, is an attempt to commit that offense.

(b) Any person subject to this code who attempts to commit any offense punishable by this code shall be punished as a court-martial may direct, unless otherwise specifically prescribed.

(c) Any person subject to this code may be convicted of an attempt to commit an offense although it appears on the trial that the offense was consummated.

An accused may be guilty of an attempt even though the crime turns out to be impossible to commit because of an outside intervening circumstance. For example, a pickpocket who puts a hand in the pocket of another person with the intent to steal a billfold is guilty of an attempt to commit larceny, even though the pocket is empty.

Art. 81. Conspiracy

''Conspiracy'' is defined as an agreement between two or more persons to commit a crime. Conspiracy refers to such a plan by a group whose intent usually is to commit a crime of a bold nature, such as overthrowing a government.

The agreement in a conspiracy need not be formal. The agreement need only be a common understanding in the minds of the parties to accomplish the objective of the conspiracy.

Art. 82. Solicitation

(a) Any person subject to this code who solicits or advises another or others to desert in violation of . . . article 85 or mutiny in violation of . . . Article 94 shall, if the offense solicited or advised is attempted or committed, be punished with the punishment provided for the commission of the offense, but, if the offense solicited or advised is not committed or attempted, he shall be punished as a court-martial may direct.

(b) Any person subject to this code who solicits or advises another or others to commit an act of misbehavior before the enemy in violation of . . . Article 99 or sedition in violation of . . . Article 94 shall, if the offense solicited or advised is committed, be punished with the punishment provided for the commission of the offense, but, if the offense solicited or advised is not committed, he shall be punished as a court-martial may direct.

Solicitation may be accomplished by other means than by word of mouth or by writing. Any act or conduct that reasonably may be considered as a serious request or advice to commit one of the offenses named in the article may constitute solicitation. The accused may act through other persons in committing this offense.

Art. 83. Fraudulent Enlistment, Appointment, or Separation

Any person who:

(1) procures his own enlistment or appointment in the armed forces by knowingly false representation or deliberate concealment as to his qualifications for that enlistment or appointment and receives pay or allowances thereunder; or

(2) procures his own separation from the armed forces by knowingly false representation or deliberate concealment as to his eligibility for that separation;

shall be punished as a court-martial may direct.

An essential element of the offense of fraudulent enlistment or appointment is that the accused shall have received pay or allowances while under that enlistment or appointment. Acceptance of food, clothing, shelter, or transportation from the government constitutes receipt of allowances.

After apprehension, an accused charged with having fraudulently obtained separation from a branch of the armed forces is subject to the *UCMJ*. The accused is subject to the *UCMJ* while in the custody of the armed forces and while awaiting trial for the fraudulent separation.

Art. 84. Unlawful Enlistment, Appointment, or Separation

> Any person subject to this code who effects an enlistment or appointment in or a separation from the armed forces of any person who is known to him to be ineligible for that enlistment, appointment, or separation because it is prohibited by law, regulation, or order shall be punished as a court-martial may direct.

Art. 85. Desertion

This article states that members of the armed forces who, without permission, leave their place of duty or organization with the intent to remain away permanently are guilty of desertion.

The status of an absentee changes to that of a deserter after 30 days of absence, or sooner if the intent to desert is apparent. For example, suppose a Navy member goes ashore without permission, taking all personal belongings and announcing to shipmates that he or she is leaving the service for good. That person could be immediately declared a deserter.

After an individual is declared a deserter, notification is forwarded to the next of kin; the deserter's hometown police; and various other law enforcement agencies, including the FBI. Deserters are nearly always caught and identified because of nationwide fingerprinting and identification practices. Furthermore, expenses incurred in the return of the deserter to military control are chargeable to the returned absentee.

The effects of desertion can be many; some can be severe. If tried and convicted of desertion, the deserter is almost certainly imprisoned; in time of war, the deserter may be executed. A person whose conviction of desertion in time of war results in a dishonorable discharge can never hold any office of trust or profit in the United States government.

Art. 86. Absence Without Leave

> Any member of the armed forces who, without authority—
>
> (1) fails to go to his appointed place of duty at the time prescribed;
> (2) goes from that place; or
> (3) absents himself or remains absent from his unit, organization, or place of duty at which he is required to be at the time prescribed;
>
> shall be punished as a court-martial may direct.

This article covers every case not provided for in the other punitive articles in which an armed forces member, through that member's own fault, is not in a required location at a specified time. As opposed to desertion, whether or not the member intended to remain away makes no difference. The intent is expressed by the member's absence.

Make sure you avoid the bad habit of taking the last bus, train, or plane when returning from leave. Always allow time for unexpected delays.

Art. 87. Missing Movement

> Any person subject to this code who through neglect or design misses the movement of a ship, aircraft, or unit with which he is required in the course of duty to move shall be punished as a court-martial may direct.

Provisions of article 87 should be self-explanatory. However, note that the violator, to be found guilty, need not have known the exact hour or even the exact date of the scheduled movement. If a person had knowledge of only the approximate date, the court may convict the absentee on the charge of missing movement. Missing ship is a serious offense to the Navy. It leaves the ship shorthanded and requires somebody to do the absentee's work and stand the absentee's watches.

Art. 88. Contempt Toward Officials

> Any commissioned officer who uses contemptuous words against the President, the Vice President, Congress, the Secretary of Defense, the Secretary of a military department, the Secretary of the Treasury, or the Governor or legislature of any State, Territory, Commonwealth, or possession in which he is on duty or present shall be punished as a court-martial may direct.

Art. 89. Disrespect Toward Superior Commissioned Officer

Any person subject to this code who behaves with disrespect toward his superior commissioned officer shall be punished as a court-martial may direct.

A superior commissioned officer is a commissioned officer who is superior in rank or command. Disrespect includes insulting words, insolence, impertinence, undue familiarity or other rudeness, and failing to salute.

Art. 90. Assaulting or Willfully Disobeying Superior Commissioned Officer

Any person subject to this code who—

(1) strikes his superior commissioned officer or lifts up any weapon or offers any violence against him while he is in the execution of his office; or
(2) willfully disobeys a lawful command of his superior commissioned officer;

shall be punished, if the offense is committed in time of war, by death or such other punishment as a court-martial may direct, and if the offense is committed at any other time, by such punishment, other than death, as a court-martial may direct.

An officer is in the "execution of his office" when performing any act the officer is required or authorized to do. Note that the article is not confined to striking a superior commissioned officer; it takes in brandishing a weapon or waving a fist under the officer's nose.

Willful disobedience, as used here, means intentional defiance of a lawful order. You must presume that any order given by an officer is legal. If you disobey because you think otherwise, you do so at your own risk. It is better to do your questioning after you have carried out the order.

Art. 91. Insubordinate Conduct Toward Warrant Officer, Noncommissioned Officer, or Petty Officer

Any warrant officer or enlisted member who—

(1) strikes or assaults a warrant officer, noncommissioned officer, or petty officer, while that officer is in execution of his office;
(2) willfully disobeys the lawful order of a warrant officer, noncommissioned officer, or petty officer; or
(3) treats with contempt or is disrespectful in language or deportment toward a warrant officer, noncommissioned officer, or petty officer, while that officer is in the execution of his office;

shall be punished as a court-martial may direct.

This article has the same general objectives with respect to warrant officers, noncommissioned officers, and petty officers as articles 89 and 90 have with respect to commissioned officers. Namely, it ensures obedience to their lawful orders and protects them from violence, insult, or disrespect.

Art. 92. Failure To Obey Order or Regulation

Any person subject to this code who—

(1) violates or fails to obey any lawful general order or regulation;
(2) having knowledge of any other lawful order issued by a member of the armed forces, which it is his duty to obey, fails to obey the order; or
(3) is derelict in the performance of his duties;

shall be punished as a court-martial may direct.

A general order or regulation is one that applies generally to an armed force. It may be issued by the President or the Secretary of Defense, the Secretary of Transportation, or the Secretary of a military department. It may also be issued by an officer having general court-martial jurisdiction, a general or flag officer in command, or a commander superior to one of these.

Disobedience of "any other lawful order" requires that the person must have had a duty to obey the order and must have had knowledge of the order. An accused may be charged with disobedience of the lawful order of one not a superior, provided the accused had a duty to obey such order. Examples are lawful orders of a sentinel or of members of the armed forces police.

Dereliction in the performance of duties occurs when a person willfully or negligently fails to perform them or performs them in a culpably inefficient manner. To be culpably inefficient, an accused must have had the ability and opportunity to perform the assigned duties efficiently, but performed them inefficiently nevertheless.

Art. 93. Cruelty and Maltreatment

> Any person subject to this code who is guilty of cruelty toward, or oppression or maltreatment of, any person subject to his orders shall be punished as a court-martial may direct.

The cruelty, oppression, or maltreatment must be real, although not necessarily physical. To assault and to subject to improper punishment are examples of this offense. The assignment of necessary or proper duties and the requirement for their correct performance will not constitute this offense even though such duties are arduous or hazardous or both.

Art. 94. Mutiny or Sedition

There are two distinct types of mutiny, both requiring an intent to usurp (to seize and hold by force without the legal right or authority) or override military authority. One type would be the creation of violence or disturbance with the intent to commit mutiny. This act may be committed by one person acting alone or by more than one. The other type of mutiny consists of a refusal in concert (in agreement) with any other person to obey or otherwise do one's duty. This second type of mutiny constitutes what is termed *collective insubordination*; it necessarily includes some combination of two or more persons in resisting lawful military authority.

Art. 95. Resistance, Breach of Arrest, and Escape

> Any person subject to this code who resists apprehension or breaks arrest or who escapes from custody or confinement shall be punished as a court-martial may direct.

Art. 96. Releasing Prisoner Without Proper Authority

> Any person subject to this code who, without proper authority, releases any prisoner committed to his charge, or who through neglect or design suffers any such prisoner to escape, shall be punished as a court-martial may direct, whether or not the prisoner was committed in strict compliance with law.

Art. 97. Unlawful Detention

> Any person subject to this code who, except as provided by law, apprehends, arrests, or confines any person shall be punished as a court-martial may direct.

Any unlawful restraint of another's freedom will result in a violation of this article, whether or not such action is taken under the appearance of authority.

Art. 98. Noncompliance With Procedural Rules

> Any person subject to this code who—
>
> (1) is responsible for unnecessary delay in the deposition of any case of a person accused of an offense under this code; or
>
> (2) knowingly and intentionally fails to enforce or comply with any provision of this code regulating the proceedings before, during, or after trial of an accused;
>
> shall be punished as a court-martial may direct.

Art. 99. Misbehavior Before the Enemy

> Any member of the armed forces who before or in the presence of the enemy—
>
> (1) runs away;
>
> (2) shamefully abandons, surrenders, or delivers up any command, unit, place, or military property which it is his duty to defend;

(3) through disobedience, neglect, or intentional misconduct endangers the safety of any such command, unit, place, or military property;

(4) casts away his arms or ammunition;

(5) is guilty of cowardly conduct;

(6) quits his place of duty to plunder or pillage;

(7) causes false alarms in any command, unit, or place under control of the armed forces;

(8) willfully fails to do his utmost to encounter, engage, capture, or destroy any enemy troops, combatants, vessels, aircraft, or any other thing, which it is his duty so to encounter, engage, capture, or destroy; or

(9) does not afford all practicable relief and assistance to any troops, combatants, vessels, or aircraft of the armed forces belonging to the United States or their allies when engaged in battle;

shall be punished by death or such other punishment as a court-martial may direct.

t. 100. Subordinate Compelling Surrender

Any person subject to this code who compels or attempts to compel the commander of any place, vessel, aircraft, or other military property, or of any body of members of the armed forces, to give it up to an enemy or to abandon it, or who strikes the colors or flag to an enemy without proper authority, shall be punished by death or such other punishment as a court-martial may direct.

Although these offenses are similar to mutiny, they do not require concert of action. The compulsion to surrender must be by acts rather than words. To "strike the colors or flag" is to surrender. The offense is committed by anyone subject to the *UCMJ* who assumes the authority to surrender a military force or position when that person is not authorized to do so either by competent authority or by the necessities of battle.

Art. 101. Improper Use of Countersign

Any person subject to this code who in time of war discloses the parole or countersign to any person not entitled to receive it or who gives to another who is entitled to receive and use the parole or countersign a different parole or countersign from that which, to his knowledge, he was authorized and required to give, shall be punished by death or such other punishment as a court-martial may direct.

A "countersign" is a word designated by the principal headquarters of a command to aid guards and sentinels in their scrutiny of persons who apply to pass the lines. It consists of a secret challenge and a password. A "parole" is a word used as a check on the countersign; it is imparted only to those who are entitled to inspect guards and to commanders of guards.

Art. 102. Forcing a Safeguard

Any person subject to this code who forces a safeguard shall suffer death or such other punishment as a court-martial may direct.

A "safeguard" is a detachment, guard, or detail posted by a commander. It protects persons, places, or property of the enemy or of a neutral affected by the relationship of the opposing forces in their prosecution of war or during a state of conflict. The term also includes a written order left by a commander with an enemy subject or posted upon enemy property for the protection of the individual or property concerned. The effect of a safeguard is a pledge of honor by a nation that its armed force will respect the person or property concerned.

Art. 103. Captured or Abandoned Property

(a) All persons subject to this code shall secure all public property taken from the enemy for the service of the United States, and shall give notice and turn over to the proper authority without delay all captured or abandoned property in their possession, custody, or control.

(b) Any person subject to this code who—

(1) fails to carry out the duties prescribed in subsection (a);

(2) buys, sells, trades, or in any way deals in or disposes of captured or abandoned property, whereby he receives or expects any profit, benefit, or advantage to himself or another directly or indirectly connected with himself; or

(3) engages in looting or pillaging;

shall be punished as a court-martial may direct.

Immediately upon its capture from the enemy, public property becomes the property of the United States. Persons subject to military law have an immediate duty to take those steps within their power and functions to secure such property to the service of the United States. They then have the duty to protect that property from destruction or loss.

Art. 104. Aiding the Enemy

Any person who—

(1) aids, or attempts to aid, the enemy with arms, ammunition, supplies, money or other things; or

(2) without proper authority, knowingly harbors or protects or gives intelligence to, or communicates or corresponds with or holds any intercourse with the enemy, either directly or indirectly;

shall suffer death or such other punishment as a court-martial or military commission may direct.

This article applies to all persons whether or not they are otherwise subject to military law. "Enemy" denotes citizens as well as members of military organizations. All the citizens of hostile nations, as well as their government, are our enemies.

Art. 105. Misconduct as Prisoner

Misconduct covers unauthorized conduct by a prisoner of war that tends to improve his or her condition to the detriment of other prisoners. Such acts may be the reporting of plans to escape or the reporting of secret caches of food, equipment, or arms. The acts must be related to the captors and tend to have the probable effect of bestowing upon the accused some favor with, or advantage from, the captors. The act of the accused must be contrary to law, custom, or regulation. For example, the escape of a prisoner might result in closer confinement or other measures against fellow prisoners still in the hands of the enemy. Such escape, however, is not an offense under this article, as escape from the enemy is regarded as authorized by custom.

Art. 106. Spies

Any person who in time of war is found lurking as a spy or acting as a spy in or about any place, vessel, or aircraft, within the control or jurisdiction of any of the armed forces, or in or about any shipyard, any manufacturing or industrial plant, or any other place or institution engaged in work in aid of the prosecution of the war by the United States, or elsewhere, shall be tried by a general court-martial or by a military commission and on conviction shall be punished by death.

The words "any person" bring within the jurisdiction of courts-martial and military commissions all persons of whatever nationality or status who commit the offense of spying.

Art. 107. False Official Statements

Any person subject to this code who, with intent to deceive, signs any false record, return, regulation, order, or other official document, knowing it to be false, or makes any other false official statement knowing it to be false, shall be punished as a court-martial may direct.

Several articles of the *UCMJ* provide for the punishment of untruths: articles 83 and 84 (Fraudulent and unlawful enlistment, appointment, or separation), article 107 (False official statements), article 131 (Perjury), and article 132 (Fraud). You can see how highly truth is regarded in the military service.

A statement, whether oral or in writing, is official when it is made pursuant to regulations. A statement is also official when made in response to a request or question from one's commanding officer or a person acting under the commanding officer's authority. Official statements thus include all those made in the line of duty.

Art. 108. Military Property of the United States—Loss, Damage, Destruction, or Wrongful Disposition

Any person subject to this code who, without proper authority—

(1) sells or otherwise disposes of;

> (2) willfully or through neglect damages, destroys, or loses; or
>
> (3) willfully or through neglect suffers to be lost, damaged, destroyed, sold, or wrongfully disposed of;
>
> any military property of the United States, shall be punished as a court-martial may direct.

Whether the property in question was issued to the accused, whether it was issued to someone other than the accused, or whether it was issued at all is immaterial.

''Willful'' means intentional. ''Neglect'' means inattention to duty or failure to take action that, under the circumstances, should have been taken to prevent the loss, destruction, or damage.

Art. 109. Property Other Than Military Property of United States—Waste, Spoilage, or Destruction

> Any person subject to this code who willfully or recklessly wastes, spoils, or otherwise willfully and wrongfully destroys or damages any property other than military property of the United States shall be punished as a court-martial may direct.

''Wastes'' and ''spoils'' refer to wrongful acts of voluntary destruction, such as burning down buildings, burning piers, tearing down fences, or cutting down trees. To be destroyed, property need be only sufficiently injured to be useless for the purpose for which it was intended. ''Damage'' consists of any physical injury to the property. The property must be other than military property of the United States and must belong to one other than the accused.

Art. 110. Improper Hazarding of Vessel

> (a) Any person subject to this code who willfully and wrongfully hazards or suffers to be hazarded any vessel of the armed forces shall suffer death or such other punishment as a court-martial may direct.
>
> (b) Any person subject to this code who negligently hazards or suffers to be hazarded any vessel of the armed forces shall be punished as a court-martial may direct.

The word ''suffers'' means to allow or permit. A person ''suffers'' a ship to be hazarded who, although not in direct control of the vessel, knows a danger to be imminent but takes no steps to prevent it. For example, a plotting officer of a ship underway inadvertently fails to report observation of a radar target on a collision course with, and dangerously close to, the ship. The officer has negligently suffered the ship to be hazarded.

Art. 111. Drunken or Reckless Driving

> Any person subject to this code who operates any vehicle while drunk, or in a reckless or wanton manner, shall be punished as a court-martial may direct.

Operating a vehicle includes not only driving or guiding it while in motion. It also includes the setting of its motive power in action or the manipulating of its controls to cause the vehicle to move. The term ''vehicle'' applies to all types of land transportation, whether motor-driven or passenger-carrying. Drunken or reckless operation of water or air transportation may be charged as a violation of article 134. For the meaning of ''drunk,'' see the remarks following article 112.

Art. 112. Drunk on Duty

> Any person subject to this code, other than a sentinel or lookout, who is found drunk on duty, shall be punished as a court-martial may direct.

The term ''on duty'' in article 112 refers to routine or detailed duties on board a ship or station. The term does not cover periods of leave or liberty (which come under a different article), but does include duties of a standby nature. A person whose mental or physical abilities are impaired by either liquor or drugs may be considered drunk.

Art. 112a. Wrongful Use, Possession, etc., of Controlled Substances

> (a) Any person subject to this code who wrongfully uses, possesses, manufactures, distributes, imports into the customs territory of the United States, exports from the United States, or introduces into an

installation, vessel, vehicle, or aircraft used by or under the control of the armed forces a substance described in subsection (b) shall be punished as a court-martial may direct.

(b) The substances referred to in subsection (a) are the following:

(1) Opium, heroin, cocaine, amphetamine, lysergic acid diethylamide, methamphetamine, phencyclidine, barbituric acid, and marijuana and any compound or derivative of any such substance.

(2) Any substance not specified in clause (1) that is listed on a schedule of controlled substances prescribed by the President for the purposes of this article.

(3) Any other substance not specified in clause (1) or contained on a list prescribed by the President under clause (2) that is listed in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812).

Art. 113. Misbehavior of Sentinel

Any sentinel or lookout who is found drunk or sleeping upon his post, or leaves it before he is regularly relieved, shall be punished, if the offense is committed in time of war, by death or such other punishment as a court-martial may direct, but if the offense is committed at any other time, by such punishment other than death as a court-martial may direct.

A post is not limited by some actual or imaginary line, nor is it confined to those times when you may be on watch as a sentry. This article covers all periods when you are standing a watch of any kind, such as guarding stores or prisoners or acting as a bow lookout. It also covers periods when you are performing any other duty that requires you to remain alert at all times.

A sentinel on post who is found asleep or drunk is guilty of a serious offense; in time of war, the offense may be punishable by death. For persons in the armed forces, drunkenness is prejudicial to good order and discipline whenever and wherever it appears. Being drunk in public, whether a person is in uniform or civilian clothes, may bring discredit upon the service, while being drunk on station is a breach of military discipline. But being drunk while on duty as a sentinel or lookout in time of war might endanger every person in the command.

Art. 114. Dueling

Any person subject to this code who fights or promotes, or is concerned in or connives at fighting a duel, or who, having knowledge of a challenge sent or about to be sent, fails to report the fact promptly to the proper authority, shall be punished as a court-martial may direct.

Art. 115. Malingering

Any person subject to this code who for the purpose of avoiding work, duty, or service—

(1) feigns illness, physical disablement, mental lapse or derangement; or

(2) intentionally inflicts self-injury;

shall be punished as a court-martial may direct.

''Malingering'' is an offense defined as any act to avoid duty by pretending to be ill or physically/mentally disabled.

Art. 116. Riot or Breach of Peace

Any person subject to this code who causes or participates in any riot or breach of the peace shall be punished as a court-martial may direct.

The term ''riot'' is used when a disturbance is caused by a group of three or more persons engaged in a concerted action against anyone who may oppose them.

''Breach of the peace'' is an unlawful disturbance by violent or turbulent means that disturbs the peace of the community. Engaging in a fight or using abusive words in public are examples of breach of the peace. As used in this article, ''community'' includes any military installation or ship as well as a civilian community.

Art. 117. Provoking Speeches or Gestures

> Any person subject to this code who uses provoking or reproachful words or gestures towards any other person subject to this code shall be punished as a court-martial may direct.

"Provoking" and "reproachful" describe those words or gestures used in the presence of the person to whom they are directed which tend to induce breaches of the peace. They do not include reprimands, censures, reproofs, and the like, which may properly be administered in the interests of training, efficiency, or discipline in the armed forces.

Art. 118. Murder

> Any person subject to this code who, without justification or excuse, unlawfully kills a human being, when he—
>
> (1) has a premeditated design to kill;
> (2) intends to kill or inflict great bodily harm;
> (3) is engaged in an act which is inherently dangerous to others and evinces a wanton disregard of human life; or
> (4) is engaged in the perpetration or attempted perpetration of burglary, sodomy, rape, robbery, or aggravated arson;
>
> is guilty of murder, and shall suffer such punishment as a court-martial may direct, except that if found guilty under clause (1) or (4), he shall suffer death or imprisonment for life as a court-martial may direct.

Art. 119. Manslaughter

> (a) Any person subject to this code who, with an intent to kill or inflict great bodily harm, unlawfully kills a human being in the heat of sudden passion caused by adequate provocation is guilty of voluntary manslaughter and shall be punished as a court-martial may direct.
>
> (b) Any person subject to this code who, without an intent to kill or inflict great bodily harm, unlawfully kills a human being—
>
> (1) by culpable negligence; or
> (2) while perpetrating or attempting to perpetrate an offense, other than those named in clause (4) of . . . Article 118, directly affecting the person;
>
> is guilty of involuntary manslaughter and shall be punished as a court-martial may direct.

Manslaughter is the unlawful killing of another. There are two basic types of manslaughter: voluntary and involuntary.

Voluntary manslaughter is the unlawful killing of another when there is an intent to kill or inflict great bodily harm, but the act is committed in the heat of sudden passion caused by adequate provocation.

Involuntary manslaughter is the unlawful killing of another committed without an intent to kill or inflict great bodily harm.

Art. 120. Rape and Carnal Knowledge

> (a) Any person subject to this code who commits an act of sexual intercourse with a female not his wife, by force and without her consent, is guilty of rape and shall be punished by death or such other punishment as a court-martial may direct.
>
> (b) Any person subject to this code who, under circumstances not amounting to rape, commits an act of sexual intercourse with a female not his wife who has not attained the age of sixteen years, is guilty of carnal knowledge and shall be punished as a court-martial may direct.
>
> (c) Penetration, however slight, is sufficient to complete these offenses.

Art. 121. Larceny and Wrongful Appropriation

"Larceny" is stealing something and keeping it; "wrongful appropriation" is taking something not your own, but only temporarily. Legally, taking or withholding is wrong if done without the consent of the owner; obtaining usually implies getting something under false pretenses. All of these meanings denote theft.

The most common example of larceny, of course, is outright theft. An example of obtaining something under false pretenses is to obtain a radio from a person who borrowed it from the owner, saying you will return it to the owner, but instead, selling it.

An example of wrongful appropriation is taking someone's car without permission and going for a joyride, later returning or abandoning the car.

Art. 122. Robbery

> Any person subject to this code who with intent to steal takes anything of value from the person or in the presence of another, against his will, by means of force or violence or fear of immediate or future injury to his person or property or to the person or property of a relative or member of his family or of anyone in his company at the time of the robbery, is guilty of robbery and shall be punished as a court-martial may direct.

When a robbery is committed by force or violence, evidence must exist of actual force or violence to the victim preceding or accompanying the taking against the victim's will. Whether or not fear is engendered in the victim is immaterial.

When a robbery is committed by means of fear, no evidence is required of actual force or violence. However, evidence of demonstrations of force or menaces that place the victim in such fear that the victim is warranted in offering no resistance is required.

Art. 123. Forgery

> Any person subject to this code who, with intent to defraud—
>
> > (1) falsely makes or alters any signature to, or any part of, any writing which would, if genuine, apparently impose a legal liability on another or change his legal right or liability to his prejudice; or
> >
> > (2) utters, offers, issues, or transfers such a writing, known by him to be so made or altered;
>
> is guilty of forgery and shall be punished as a court-martial may direct.

A forgery may be committed by a person's signing his or her own name to an instrument. For example, presume a check payable to the order of a certain person comes into the hands of another person of the same name. The receiver commits forgery if, knowing the check to be another person's, he or she endorses it with his or her own name with the intent to defraud.

Some of the instruments most frequently subject to forgery are checks, orders for delivery of money or goods, military orders directing travel, and receipts. A writing may be falsely "made" by materially altering an existing writing; by filling in or signing the blanks in a paper, such as a blank check; or by signing an instrument already written.

Art. 123a. Making, Drawing, or Uttering Check, Draft, or Order Without Sufficient Funds

This article provides specific statutory authority for the prosecution of bad check offenses. In the absence of evidence indicating otherwise, bad faith might be shown by the maker's or drawer's failure to effect redemption within the 5-day period provided for in the article. The offense of wrongfully and dishonorably failing to maintain sufficient funds for payment of checks upon presentment is a violation of article 134. This offense is a lesser included offense under article 123, not requiring proof of fraudulent intent.

Art. 124. Maiming

> Any person subject to this code who, with intent to injure, disfigure, or disable, inflicts upon the person of another an injury, which—
>
> > (1) seriously disfigures his person by any mutilation thereof;
> >
> > (2) destroys or disables any member or organ of his body; or
> >
> > (3) seriously diminishes his physical vigor by the injury of any member or organ;
>
> is guilty of maiming and shall be punished as a court-martial may direct.

Maiming includes putting out a person's eye; cutting off a person's hand, foot, or finger; or knocking out a person's front teeth, as these injuries destroy or disable those members or organs. Maiming also includes cutting off a person's ear or scaring a person's face, as these injuries seriously disfigure the person. Injuring an internal organ so as to seriously diminish the physical vigor of a person is also considered maiming.

The disfigurement, diminishment of vigor, or destruction or disablement of any member or organ must be a serious injury, one of a substantially permanent nature. However, the offense is complete if such an injury is inflicted, even though the victim may eventually recover the use of the member or organ or the disfigurement may be cured by surgery.

Art. 125. Sodomy

> (a) Any person subject to this code who engages in unnatural carnal copulation with another person of the same or opposite sex or with an animal is guilty of sodomy. Penetration, however slight, is sufficient to complete the offense.
>
> (b) Any person found guilty of sodomy shall be punished as a court-martial may direct.

Any unnatural method of carnal copulation is prohibited by this article. Any penetration, however slight, is sufficient to complete the offense; emission is not necessary.

Art. 126. Arson

> (a) Any person subject to this code who willfully and maliciously burns or sets on fire an inhabited dwelling, or any other structure, movable or immovable, wherein to the knowledge of the offender there is at the time a human being, is guilty of aggravated arson and shall be punished as a court-martial may direct.
>
> (b) Any person subject to this code who willfully and maliciously burns or sets fire to the property of another, except as provided in subsection (a), is guilty of simple arson and shall be punished as a court-martial may direct.

In aggravated arson, danger to human life is the essential element; in simple arson, it is injury to the property of another. In either case, the fact that no one is injured is immaterial.

Art. 127. Extortion

> Any person subject to this code who communicates threats to another person with the intention thereby to obtain anything of value or any acquittance, advantage, or immunity is guilty of extortion and shall be punished as a court-martial may direct.

A threat may be communicated by word of mouth or in writing, the essential element of the offense being the knowledge of the threat to the victim. An acquittance is, in general terms, a release or discharge from an obligation. An intent to obtain any advantage or immunity of any description may include an intent to make a person do an act unwillingly.

The threat sufficient to constitute extortion may be a threat against the person or property of the individual threatened. It may also be a threat of unlawful injury or any other harm to any family member or other person held dear to the victim.

Art. 128. Assault

> (a) Any person subject to this code who attempts or offers with unlawful force or violence to do bodily harm to another person, whether or not the attempt or offer is consummated, is guilty of assault and shall be punished as a court-martial may direct.
>
> (b) Any person subject to this code who—
>
> > (1) commits an assault with a dangerous weapon or other means of force likely to produce death or grievous bodily harm; or
> >
> > (2) commits an assault and intentionally inflicts grievous bodily harm with or without a weapon;
>
> is guilty of aggravated assault and shall be punished as a court-martial may direct.

Section (a) describes the offense of simple assault. Swinging your fist, pointing a gun at a person, or raising a club over someone's head, even though no harm is actually done, is each an act of simple assault. When the threat is consummated and force is applied to the victim, the offense becomes assault and battery.

Section (b) describes aggravated assault, of which there are two types. The first is assault with a dangerous weapon and other means of force likely to kill or grievously harm the victim (like shoving a person over the fantail). The second type takes place when an assailant intentionally inflicts severe bodily harm, with or without a weapon. If, after you have knocked an individual down, you repeatedly kick him or her so as to break the person's ribs, you have committed aggravated assault.

Art. 129. Burglary

> Any person subject to this code who, with intent to commit an offense punishable under . . . Articles 118-128, breaks and enters, in the nighttime, the dwelling house of another, is guilty of burglary and shall be punished as a court-martial may direct.

The house must be a dwelling place at the time of the breaking and entry, but the residents do not have to actually be in it. A simple act such as opening a closed door or window or some other similar fixture or cutting out the glass of a window or the netting of a screen constitutes breaking Entry gained through a trick, false pretense, impersonation, intimidation, or collusion also constitutes breaking. For the intruder to succeed in carrying out the intent for which the house was broken into is not an essential element.

Art. 130. Housebreaking

> Any person subject to this code who unlawfully enters the building or structure of another with intent to commit a criminal offense therein is guilty of housebreaking and shall be punished as a court-martial may direct.

The initial entering must amount to trespassing; this article is not violated if the accused entered the building or structure lawfully, even though the person had the intent to commit an offense therein. This offense is broader than burglary in that the place entered need not be a dwelling house; also, the place need not be occupied. A breaking is not essential. The entry may be either in the nighttime or in the daytime. The criminal intent is not limited to those offenses punishable under articles 118 through 128.

Art. 131. Perjury

> Any person subject to this code who in a judicial proceeding or in a course of justice willfully and corruptly gives, upon a lawful oath or in any form allowed by law to be substituted for an oath, any false testimony material to the issue or matter of inquiry is guilty of perjury and shall be punished as a court-martial may direct.

"Judicial proceeding" includes a trial by court-martial, and "course of justice" includes an investigation conducted under article 32.

For false testimony to be "willfully and corruptly" given, the accused must appear not to believe his or her testimony to be true.

The false testimony must be with respect to a material matter, but that matter need not be the main issue in the case. Thus, a person may commit perjury by giving false testimony about the credibility of a material witness, as well as by giving false testimony concerning either direct or circumstantial evidence.

Art. 132. Frauds Against the United States

This article deals with frauds against the United States. It pertains to making false claims against the government to obtain money or property.

It also pertains to the offense of making a writing or other paper known to contain a false statement for the purpose of obtaining the approval, allowance, or payment of a claim. The offense is complete when the writing or paper is made for that purpose, whether or not the use of either one has been attempted and whether or not the claim has been presented.

Art. 133. Conduct Unbecoming an Officer and a Gentleman

> Any commissioned officer, cadet, or midshipman who is convicted of conduct unbecoming an officer and a gentleman shall be punished as a court-martial may direct.

Art. 134. General Article

> Though not specifically mentioned in this code, all disorders and neglects to the prejudice of good order and discipline in the armed forces, all conduct of a nature to bring discredit upon the armed forces, and crimes and offenses not capital, of which persons subject to this code may be guilty, shall be taken cognizance of by a general, special, or summary court-martial, according to the nature and degree of the

offense, and shall be punished at the discretion of that court.

Article 134 makes punishable acts or omissions not specifically mentioned in other articles. They include wearing an improper uniform, abusive use of a military vehicle, the careless discharge of a firearm, and impersonating an officer. They also include offenses involving official passes, permits, and certificates, and the wrongful possession of a habit-forming narcotic drug.

''Discredit'' means to injure the reputation of; that is, to bring the service into disrepute. Examples include acts in violation of state or foreign laws, failure to pay one's debts, adultery, bigamy, and indecent acts.

Crimes and offenses not capital include those acts or omissions, not punishable by another article, denounced as crimes or offenses by enactments of Congress or under authority of Congress and made triable in the federal civil courts. Certain of such offenses are made punishable wherever committed; others are punishable only if committed within the geographical boundaries of the areas in which they are applicable.

Art. 137. Articles To Be Explained

> Articles 2, 3, 7-15, 25, 27, 31, 37, 38, 55, 77-134 and 137-139 of this code shall be carefully explained to each enlisted member at the time of his entrance on active duty, or within six days thereafter. They shall be explained again after he has completed six months of active duty, and again at the time when he reenlists. A complete text of the *Uniform Code of Military Justice* and of the regulations prescribed by the President thereunder shall be made available to any person on active duty upon his request, for his personal examination.

Art. 138. Complaints of Wrongs

> Any member of the armed forces who believes himself wronged by his commanding officer, and who, upon due application to that commanding officer, is refused redress, may complain to any superior commissioned officer, who shall forward the complaint to the officer exercising general court-martial jurisdiction over the officer against whom it is made. The officer exercising general court-martial jurisdiction shall examine into the complaint and take proper measures for redressing the wrong complained of; and he shall, as soon as possible, send to the Secretary concerned a true statement of that complaint, with the proceedings had thereon.

This article provides for redress of wrongs inflicted by a commanding officer on subordinates, and it prescribes the procedure to be followed by subordinates to apply for such redress.

Art. 139. Redress of Injuries to Property

> (a) Whenever complaint is made to any commanding officer that willful damage has been done to the property of any person or that his property has been wrongfully taken by members of the armed forces, he may, under such regulations as the Secretary concerned may prescribe, convene a board to investigate the complaint. The board shall consist of from one to three commissioned officers and, for the purpose of that investigation, it has power to summon witnesses and examine them upon oath, to receive depositions or other documentary evidence, and to assess the damages sustained against the responsible parties. The assessment of damages made by the board is subject to the approval of the commanding officer, and in the amount approved by him shall be charged against the pay of the offenders. The order of the commanding officer directing charges herein authorized is conclusive on any disbursing officer for the payment by him to the injured parties of the damages so assessed and approved.
>
> (b) If the offenders cannot be ascertained, but the organization or detachment to which they belong is known, charges totaling the amount of damages assessed and approved may be made in such proportion as may be considered just upon the individual members thereof who are shown to have been present at the scene at the time the damages complained of were inflicted, as determined by the approved findings of the board.

ENFORCEMENT OF THE UCMJ

The *UCMJ* gives the rules and regulations that should govern our behavior. These rules, as with any rules, however, are not always obeyed. When these rules are broken, the offender must be punished. This is done according to the provisions of article 15 (Commanding officer's nonjudicial punishment) or, in some cases, by courts-martial.

Nonjudicial Punishment

Commanding officer's nonjudicial punishment is often referred to as captain's mast. Captain's mast gets its name from the old sailing days when the setting for this form of naval justice was the weather deck near the ship's mainmast.

Cases are heard and punishments given at captain's mast. Anyone who is not attached to or embarked in a vessel may, however, demand trial by court-martial in lieu of punishment at mast, before such punishment is imposed. Anyone attached to a vessel may not request trial by court-martial in lieu of captains's mast.

The punishments permitted at captain's mast depend upon the rank of the officer holding mast. Figure 6-2 shows the punishment that may be awarded.

A commanding officer who decides an offense deserves a punishment more severe than he or she is authorized to award at mast may order a court-martial.

The following paragraphs explain some of the punishments that may be given at captain's mast.

RESTRICTION.—Restriction is the requirement to remain within certain specified limits (ship, station, etc.). Although required to muster at certain times, the restricted person usually continues to perform his or her regular duties.

CORRECTIONAL CUSTODY.—Correctional custody is the physical restraint (confinement) of a person during duty or nonduty hours, or both. The person may be required to perform extra duties or hard labor. A typical example is an individual who is free to carry out regular duties during the day but is confined in the brig at night.

CONFINEMENT ON BREAD AND WATER OR DIMINISHED RATIONS.—Confinement on bread and water or diminished rations may be imposed only on enlisted persons aboard ship. Correctional custody and confinement on bread and water may be imposed only on enlisted persons below the rank of petty officer.

EXTRA DUTY.—Extra duty is the assignment of any duty (except guard duty) to be performed after the person's regular working hours. Extra duty is not to exceed 2 hours daily or to be performed on holidays. Petty officers may not be assigned extra duties that would demean their grade or position.

FORFEITURE OF PAY.—Forfeiture of pay is a permanent loss of a specified amount or a temporary withholding of a certain amount of pay. The detention period must be specified. The money detained is normally returned at the end of the detention period, but it can be detained for a period of 1 year.

DETENTION OF PAY.—Detention of pay is the temporary withholding of a certain amount of pay. The detention period must be specified. The money detained is normally returned at the end of the detention period, but it can be detained for a period of 1 year.

APPEALS.—If persons consider their punishment under article 15 to be unjust or out of proportion to the offense, they may appeal to the next superior authority in the chain of command. The appeal must be made within a reasonable time (generally 15 days) and promptly forwarded. If the superior authority upholds the appeal, all rights, privileges, and property are restored.

PROTECTION AGAINST SELF-INCRIMINATION.—Under article 31 of the *UCMJ*, compulsory self-incrimination is prohibited. The accused must be informed of the nature of the

	PUNISHMENT	PUNISHMENT IMPOSED BY			
		Flag or general officer in command	CO if LCDR or above	CO if below LCDR	OIC—any grade
OFFICER	Admonition or reprimand	Yes	Yes	Yes	No
	Restriction	60 days	30 days	15 days -JAG man. 0101-	No
	Arrest in quarters	30 days	No	No	No
	Forfeiture of pay	1/2 of 1 mo. pay per mo. for 2 mo.	No	No	No
	Detention of pay	1/2 of 1 mo. pay per mo. for 3 mo.	No	No	No

		Any officer commanding, LCDR and above	Commanding officers below LCDR; OICs, any grade
ENLISTED	Admonition or reprimand	Yes	Yes
	Confinement on B&W or diminished rations	3 consecutive days (only on E-3 and below, aboard ship) -JAG Man. 0101-	3 consecutive days (only on E-3 and below, aboard ship) -JAG Man. 0101-
	Correctional custody	30 consecutive days (only on E-3 and below) -JAG Man. 0101-	7 consecutive days (only on E-3 and below) -JAG Man. 0101-
	Forfeiture of pay	1/2 of 1 mo. pay per mo. for 2 mo.	7 days' pay
	Reduction in grade	To next inferior grade -JAG Man. 0101-	To next inferior grade
	Extra duty	45 days	14 days
	Restriction	60 days	14 days
	Detention of pay	1/2 of 1 mo. pay per mo. for 3 mo.	14 days' pay

Figure 6-2.—One or more of the maximum punishments authorized by article 15, UCMJ, may be imposed upon military personnel of the commands by the categories of commanding officers (including officers in charge) shown above. Punishments authorized by article 15 are primarily corrective in nature.

charges against him or her. The accused must also be advised that he or she does not have to make any statement regarding the offense of which accused, but that any statement made may be used as evidence against him or her in a trial by court-martial. No statement obtained through the use of coercion, unlawful influence, or unlawful inducement may be used as evidence against the accused.

MERITORIOUS AND REQUEST MASTS.— Not all masts are for disciplinary purposes. A meritorious mast may be held by the commanding officer to give awards or commendations to those persons who have earned them.

Article 1107 of *Navy Regs* grants the right for any person to communicate with the commanding officer. You can't just walk up to the captain, however, and start talking. Certain times are set aside by the CO for the purpose of hearing valid requests or complaints from crew members. This practice is called request mast. The person having a request or grievance should first try to resolve the problem with the division officer. Failing that, the person may request a mast. Usually, the person will talk to the executive officer first. If the executive officer cannot settle the matter, then the person may see the commanding officer.

Courts-martial

Based on article 16 of the *UCMJ*, courts-martial are of three types: summary, special, and general. The captain decides the type of court-martial to award based on the nature, time, and place of the offense.

SUMMARY COURT-MARTIAL (SCM).— A summary court-martial (SCM) consists of one commissioned officer. If the commanding officer is the only officer with the command, that officer acts as the summary court officer. A summary court can award any sentence that may be given at mast. It can also award the additional punishments of confinement for 1 month and hard labor without confinement for 45 days. Any person awarded a summary court-martial will then be held, as appropriate.

SPECIAL COURT-MARTIAL (SPCM).— A special court-martial (SPCM) consists of not less than three members. The accused can request that enlisted personnel serve on the court. In that event, enlisted personnel make up at least one-third of the court membership. When a military judge (a qualified lawyer) is detailed to the court, the accused has the right to know the identity of the military judge. The accused also has the right to consult with the defense counsel and to request that the court consist of only the military judge. The request must be in writing, submitted before the court is assembled, and approved by the military judge. A special court-martial may award the same punishment as a summary court, or it may award a more severe punishment. For example, it can award a bad conduct discharge, confinement for 6 months, loss of two-thirds pay per month for 6 months, and hard labor without confinement for 3 months.

GENERAL COURT-MARTIAL (GCM).— A general court-martial (GCM) consists of a military judge and not less than five members. As in a special court-martial, the accused may request that enlisted personnel serve on the court. Under the conditions described for a special court, the accused may request that the court consist of only a military judge. A general court-martial can award any punishment not forbidden by the *UCMJ*, including death when specifically authorized for the offense.

STANDARD ORGANIZATION AND REGULATIONS OF THE U.S. NAVY

The *Standard Organization and Regulations of the U.S. Navy* (OPNAVINST 3120.32B) provides regulations and guidance governing the conduct of all members of the Navy. This publication specifies duties and responsibilities of personnel within a unit organization—from the commanding officer down to the messenger of the watch.

The information quoted in italicized type in this instruction is regulatory; these regulations apply to each member of the U.S. Navy. Failure to comply with the provisions of the regulatory material is punishable in accordance with the

Uniform Code of Military Justice (*UCMJ*). Regulatory articles are printed on large posters, which are posted in conspicuous locations aboard naval units.

Quoted material in plain type is guidance for commanders, commanding officers, and officers in charge.

Because the explanation of these regulations is beyond the scope of this book, only a selected few of the regulatory articles will be given as examples. Our concern in this section is with chapter 5, "Regulations," of the *Standard Organization and Regulations of the U.S. Navy*.

510.5 Armed Forces Identification Cards and Leave Papers

No person without proper authority shall:

a. Have in his/her possession more than one properly validated Armed Forces Identification Card.

b. Depart on liberty without his/her own properly validated identification card; or, in the case of leave, without his/her own properly validated leave papers and identification card.

c. Have in his/her possession a false or unauthorized identification card; or a mutilated, erased, altered, or not properly validated identification card; or an identification card bearing false or inaccurate information concerning a name, grade, service number, or date of birth.

d. Return from leave without depositing his/her leave papers with the proper authority. Any person returning without an identification card shall report the loss to the OOD in person.

510.14 Customs

Upon arrival of a naval unit in United States territory after visiting a foreign port, it is subject to customs and other inspections by Federal authorities.

a. On such occasions, customs declarations will be distributed to all hands in sufficient time to be filled out and returned before arrival in port.

b. It shall be the duty of all personnel to complete customs declarations accurately prior to arrival in port.

c. No person, without permission from the Commanding Officer, shall bring on board any article, animal, or any other thing, the introduction of which into U.S. territory is forbidden or restricted under current regulations.

510.16 Divine Services

Accessible and appropriate space shall be provided for divine services. No person shall conduct himself/herself in a manner which would interfere with properly authorized divine services.

510.18 Emergency Equipment

No person shall use emergency equipment for any purpose other than that for which it is intended. Emergency equipment includes items such as battle lanterns, emergency first aid boxes, shoring, wrenches, life rings, equipment in life rafts and boats, portable fire pumps, fire hoses, and fuel for emergency machinery.

510.21 Government Property

No person shall:

a. Conceal or fail to report to proper authority the loss, removal, destruction, or damage of Government property entrusted to his/her care or custody.

b. Remove without proper authority from its regular place of stowage or location, for any purpose whatever, any article of Government property, including hull and damage control fittings, first aid equipment, life saving and emergency equipment, and stores and foodstuffs.

c. Have in his/her possession any article of Government property except as may be necessary for the performance of his/her duty or as may be authorized by proper authority.

510.22 Grooming and Personal Appearance

It is the responsibility of officers in command to ensure their personnel are neat and well groomed at all times. (See *U.S. Navy Uniform Regulations*, NAVPERS 15665G, for current standards.)

510.24 Hitchhiking

No naval personnel will, on a public road, street, or highway, endeavor by words, gestures, or otherwise to beg, solicit, or hitchhike a ride in or on any motor vehicle. Accepting rides at established service personnel pickup stations is authorized.

510.25 Indebtedness

Since indebtedness brings a discredit to the naval service, debts shall not be incurred when there is no reasonable expectation of repaying them. The Commanding Officer's interest in the matter of indebtedness of personnel attached to a naval unit will be directed principally to the establishment of facts so that corrective or disciplinary measures may be taken.

510.27 Intoxicated Persons

All persons intoxicated to such an extent as to create a disturbance or to make their being at large dangerous to their personal safety or to the safety of the unit shall be placed under protective restraint upon direction of the Commanding Officer, the Command Duty Officer, or the Officer of the Deck.

a. The Officer of the Deck or the Command Duty Officer shall ensure that all persons who return on board in an intoxicated condition, or found on board intoxicated, shall be promptly examined by the medical officer or a qualified representative.

b. When restraint is imposed on an individual, it should be in such a manner as to accomplish the desired degree of restraint with a minimum of force. Attachment of an individual to a fixed or immovable object should only be authorized when all else fails, and then a continuous guard should be posted with specific instructions to care for the welfare of the person under restraint in the event of an emergency.

510.28 Leave and Liberty

No person will:

a. Proceed from the confines of a naval unit without permission of proper authority.

b. Proceed from the confines of a naval unit while knowingly in a restraint status without permission of the Commanding Officer, the Executive Officer, or in emergencies, the Command Duty Officer.

c. Proceed from the confines of a naval unit while knowingly on the sick list, binnacle list, or the medical quarantine list.

d. Fail to report his/her departure from or return to a naval unit to the OOD or an authorized representative.

510.34 Motor Vehicles

The following provisions relate to personnel operating motor vehicles assigned to Navy units:

a. No person shall operate a Government-owned motor vehicle assigned to a naval unit unless specifically designated to do so by the Commanding Officer, and then only for official unit business.

b. Military personnel operating Government-owned motor vehicles shall comply with all post, station, local, state, and Federal directives. U.S. Government operator's permit is not required for vehicles under one ton.

c. All persons operating Government-owned motor vehicles assigned to a naval unit shall obtain the permission of the OOD before driving away from the unit and shall report to the OOD upon their return. Arrival and departure reports of vehicles assigned to naval vessels may be made to the beach guard.

510.40 Personal Effects

The command and individuals have a shared responsibility to safeguard the personal property of members of the unit.

a. No person will maintain personal belongings or other articles in any locker closet, peacoat locker, or space other than that regularly assigned to him/her or authorized by proper authority to use.

b. Each person is responsible for obtaining a lock and keeping his/her locker locked at all times. Any evidence of tampering with locks or unauthorized entry into a personal locker will be reported to the Chief Master-At-Arms immediately.

c. When any enlisted person on board a naval unit is declared a deserter or becomes mentally or physically incapacitated to the extent that he/she can no longer care for his/her personal effects, they will be collected, inventoried, and sealed by a division petty officer in the presence of the division officer and a master-at-arms and delivered to the Chief Master-At-Arms for safekeeping and disposition in accordance with current instructions. Only personnel designated will handle or disturb in any way the personal effects of another person.

d. The personal effects of an absent or incapacitated officer will be inventoried and packed by two officers designated by the Executive Officer and will be delivered to the supply office for safekeeping and disposition per current instructions.

510.44 Photographic Equipment

No person shall:

a. Possess or introduce on board a naval unit any camera or other photographic equipment capable of exposing a photographic plate or film without permission of the Commanding Officer or his authorized representative.

b. Make photographs of a naval unit or its equipment, or of objects from the unit, without permission of the Commanding Officer, and then only of the objects for which permission was specifically given.

c. While on watch or duty as a sentry or member of a patrol, knowingly permit the introduction of any camera or photographic equipment on board a naval unit unless such equipment is authorized by the Commanding Officer or authorized representative.

510.45 Plan of the Day

A plan of the day will be published daily by the Executive Officer or an authorized representative and will issue such orders and directives as the Executive Officer may issue. When the Executive Officer is absent from the unit it will be issued by the Command Duty Officer.

a. The Plan of the Day will be posted on all department and division bulletin boards.

b. All persons will read the Plan of the Day each day. They are responsible for obeying applicable orders contained therein. In port, the Plan of the Day will be read at quarters.

510.46 Profane Language

No person will use profane, obscene, or vulgar words or gestures on board a naval unit.

SUMMARY

Although most of us could not possibly memorize each article of *Navy Regs*, the *UCMJ*, or the *SORN*, we should all be familiar with them. The intent of this chapter is just that: to familiarize you with these articles; therefore, we only scratch the surface. You would be wise to read *Navy Regs*, the *UCMJ*, and the *SORN* in their entirety. Even then you should go back and review them periodically, because all are often used in the process of running a division and the Navy.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Manual for Courts-Martial, United States, 1984, Washington, D.C., 1984.

Standard Organization and Regulations of the U.S. Navy, OPNAVINST 3120.32B, Chief of Naval Operations, Washington, D.C., 1986.

United States Navy Regulations, 1990, Secretary of the Navy, Washington, D.C., 1990.

KEELHAUL

TO BE KEELHAULED TODAY IS MERELY TO BE GIVEN A SEVERE REPRIMAND FOR SOME INFRACTION OF THE RULES. AS LATE AS THE 19TH CENTURY, HOWEVER, IT MEANT THE EXTREME. IT WAS A DIRE AND OFTEN FATAL TORTURE EMPLOYED TO PUNISH OFFENDERS OF CERTAIN NAVAL LAWS.

AN OFFENDER WAS SECURELY BOUND BOTH HAND AND FOOT AND HAD HEAVY WEIGHTS ATTACHED TO HIS BODY. HE WAS THEN LOWERED OVER THE SHIP'S SIDE AND SLOWLY DRAGGED ALONG UNDER THE SHIP'S HULL. IF HE DIDN'T DROWN--WHICH WAS RARE--BARNACLES USUALLY RIPPED HIM, CAUSING HIM TO BLEED TO DEATH.

ALL NAVIES STOPPED THIS CRUEL AND UNUSUAL PUNISHMENT MANY YEARS AGO AND TODAY ANY SUCH PUNISHMENT IS FORBIDDEN.

CHAPTER 7

MILITARY COURTESY

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the normal courtesies juniors render to seniors.
2. Identify the basic rules of conduct for shipboard officers.
3. Describe the basic guidelines for officers' relationships with enlisted personnel.
4. Identify the proper forms of address for military personnel to both military and civilian persons.
5. Describe the proper procedures for boarding ships and boats.
6. Identify the rules for quarterdeck etiquette.
7. Describe the organization and rules of etiquette for the wardroom mess.
8. Identify the rules of boat etiquette.
9. Describe the conduct expected of naval personnel in foreign countries.
10. Describe the origin of the hand salute.
11. Identify the proper method of saluting.
12. Identify the times when saluting is appropriate and inappropriate.

The essential traits of a naval officer are tact, loyalty, integrity, tolerance, dependability, good manners, self-confidence, a sense of humor, regard for the rights of others, and the ability to treat everyone as equals.

In a letter to Congress in 1775, John Paul Jones wrote, "It is by no means enough that an officer of the Navy should be a capable mariner. He must be that, of course, but also a great deal more. He should be as well a gentleman of liberal education and refined manners, punctilious courtesy, and the nicest sense of personal honor."

This chapter introduces most of the main aspects of military courtesy and etiquette. It covers the traditional elements that still survive and those which have changed with the passage of time.

NAVAL ETIQUETTE

Military courtesy between officers and enlisted personnel undergoes little change during wartime. These relations are the most fundamental part of all military courtesy and the main source of most naval etiquette.

The twin foundations of military courtesy among officers are precedence and deference to seniors. Officers take precedence according to their grade. This precedence is not confined strictly to military relationships on ship or shore, but extends to the mess, to the club, and to social life.

Naval courtesy prescribes that junior officers accord their seniors certain respect. This respect corresponds to that which younger people accord to their elders in a polite society. It also prescribes that seniors acknowledge and respond, with equal care, to these tokens of respect required of juniors. Those serving their country in the strictly ordered fraternity of military service observe naval courtesy as a type of ritual.

GENERAL RELATIONS BETWEEN JUNIORS AND SENIORS

A junior officer approaching a senior for the purpose of making an official report remains at attention until invited to be seated or to stand at ease. The junior officer awaits rather than anticipates the invitation.

Unless on watch, a person in the naval service uncovers when entering a room where a senior is present.

When a senior enters a room where junior officers or enlisted persons are seated, the one who first sees the senior calls, "Attention on deck." All present remain at attention until ordered to carry on.

Personnel seated at work, at games, or at mess normally are not required to rise when an officer passes unless they must clear a path. However, they are required to rise when called to attention or when a flag officer or the captain of the ship passes.

The place of honor is on the right. Accordingly, when a junior walks, rides, or sits with a senior, the junior takes position alongside and to the left.

When entering an automobile or a boat, officers do so in inverse order of grade. A lieutenant and a captain getting into an automobile enter in that order. The lieutenant takes the seat in the far, or left-hand, corner and the captain sits on the right side. When getting out, the captain leaves first. In entering buildings or rooms, however, the junior opens doors for the senior and enters last.

The custom of the "right-hand rule" is an old one, quaintly expressed by George Washington in the 30th "Rule of Civility": "In walking, the highest place in most countries seems to be on the right hand, therefore, place yourself on the left of him whom you desire to honor."

At parties, to leave before the commanding officer is considered poor taste. If necessary to do so, guests should pay their respects to the commanding officer before departing.

A junior never offers to shake hands with a senior; the senior makes the first gesture.

A junior officer avoids keeping a senior waiting. Normal courtesy aside, punctuality is essential in the military service. When called by a senior, a junior responds immediately.

In replying to questions from a senior, a junior officer avoids a great deal of embarrassment by giving complete and explicit answers. If the junior cannot supply the desired information, an "I don't know, sir/ma'am, but I will find out and let you know" is the best answer. An indirect answer may convey misinformation on which a senior may be basing an important decision. To avoid admitting ignorance, juniors sometimes make evasive statements that not only seriously affect their reputation but also confuse the issue.

A junior assigned to do a task should promptly report the progress of completing the task to the senior. The junior should report either the completion of the task or exactly what has been done toward its completion.

When given orders, juniors must ensure they know what is required. They should not hesitate to ask questions to clarify points. If they need advice, they should seek it first from their peers, but should not hesitate to go to the senior who gave the orders. Juniors should anticipate the wishes of a senior whenever possible.

An officer should not jump the chain of command. When necessary to proceed to someone higher in the chain of command, officers should keep their immediate supervisor informed of their actions.

Suggestions for Junior Officers

Excuses for failure or negligence are always unacceptable. Officers should assume responsibility and not depend on alibis. If at fault, they should freely accept blame.

Bootlicking, a deliberate courting of a person for favor, is despised. Seniors may temporarily mistake such tactics for a sincere desire to please and to do a good job. However, through long experience with such behavior, they in time recognize this false sincerity. However, junior officers must make a genuine effort to be friendly and cooperative to succeed. Persons with a continued willingness to undertake any task assigned and perform it cheerfully and efficiently eventually gain a reputation for dependability. They also ensure their popularity with fellow officers. Continued complaining has the opposite effect.

The satisfaction of having done a good job should be sufficient reward in itself. The junior officer should not report each personal or divisional accomplishment to the senior officer. Of course a report that is required must be made, but work well done generally reaches the attention of superiors.

The conduct of members of the service must be above criticism. The Navy is often judged by the appearance and behavior of its personnel.

Officers should carefully consider all undertakings and projects in advance and make all preparations necessary to their success well in advance. Officers should be capable of thinking ahead and making intelligent plans; they must always strive to demonstrate that they are entitled to the grade they hold.

One of the best things a senior officer can say about juniors is that when given a job, they can always be depended upon for satisfactory results.

Suggestions for Shipboard Officers

Officers have customarily relieved the watch not later than 15 minutes before the hour that the watch begins (usually signaled by the traditional bell system of shipboard timekeeping). That requires the officers to be on the bridge at sea 30 minutes before the bell. For officers to be late to relieve the watch is not only a breach of naval custom but is discourteous and unpardonable.

Every officer has two personalities, the official and the unofficial. An officer who plays the "good guy" on watch is sooner or later bound to come to grief. Holding a boat for another officer who is late is an example. Telling the executive officer that the written order contained in the boat schedule has been disobeyed simply because another officer requested it is a poor excuse.

Whenever an officer receives an order to pass to subordinates for action, that officer must promptly and smartly execute that order. The officer's responsibility in the matter does not end until the order has been completed.

Although personnel will not like every order they receive, everyone in the chain of command must obey all orders. Carrying out such orders may seem difficult, but an officer should never apologize for them and should never question an order in front of subordinates.

When new officers report aboard ship, they should devote most of their spare time to professional reading and getting acquainted with the ship's organization and regulations. They should set aside a certain amount of time each day for professional study.

New officers would be wise never to request permission to leave the ship in the afternoon until they have completed the work assigned or expected of them. They have much to learn in the first few months aboard ship. Astute newcomers will avoid becoming known as "liberty hounds."

All hands will critically evaluate new officers shortly after they report aboard ship. Since they will evaluate the appearance as well as the ability of new officers, having a good appearance is important. Therefore, officers should wear their good clothes at quarters and their best clothes at inspections.

Senior officers do not always call attention to minor faults or errors made by juniors, but they are sure to notice them and will form their opinions accordingly. While senior officers will make allowances for lack of experience, they will base their final estimate entirely on what the new officer contributes. Junior officers should be alert and analyze their own conduct frequently to determine if they are unintentionally offending anyone. Such behavior might involve a junior's lack of respect toward senior officers or a tendency to become familiar with them. It could also involve the officer's harsh, unreasonable handling of enlisted personnel or irresponsibility and lack of initiative.

An outstanding naval officer of the 19th century, Matthew Fontaine Maury, said: "Make it a rule never to offend, or to seek causes of offense in the conduct of others. Be polite to all, familiar with but few. The rule in the Navy is to treat everybody as a gentleman until he proves himself to be otherwise. It is a good rule—observe it well."

Some officers tend to think their rank or position will carry them through all difficult situations even if they are unqualified for the responsibilities of the office they hold. Inevitably they suffer a rude awakening. Intelligent and effective junior officers know the limits of their abilities and continually strive to increase those limits by learning from all available sources.

Of all the valuable qualities an officer can have, few of them are superior in importance to tact. In a military sense tact means a knowledge and an appreciation of when and how to do things. Tactful officers know how to deal with their shipmates—both senior and junior. The usefulness of many officers who are otherwise capable has been damaged because they do not use tact.

In conclusion, all organizations in society have certain customs and etiquette. Such customs and etiquette are especially necessary for smooth cooperation between persons living close together as done aboard a man-of-war. Disregard of customs and etiquette marks a person as careless, indifferent, or ignorant.

All professional officers and enlisted persons take pride in naval traditions and eagerly conform to the customs and etiquette of the service. These traditions and customs are the honorable heritage of "seamen who go down to the sea in ships."

SHIPBOARD RELATIONS BETWEEN OFFICERS AND ENLISTED PERSONS

A shipboard environment increases the difficulty with which officers and enlisted persons maintain the proper relationship. Developing a level of communication with their personnel that will foster mutual respect is of vital importance for new officers. The key to developing this communication is for officers to learn the personality and character of every one of their juniors. American blue-jackets are intelligent, cooperative, and ambitious. They want their superiors to treat them well and show appreciation for their ability. They want to respect their officers, to admire them, and to be able to boast about them to the crews of other ships.

By virtue of their commission, new officers find themselves in charge of people; they may feel strange about this newly acquired authority. Because inexperienced officers may feel uncertain about associating with enlisted personnel, they may hesitate to develop a good relationship. They want to be liked by their personnel, to know them as individuals, yet maintain rightful authority over them.

Personal dignity is a quality new officers must cultivate. Successful leaders possess that undefinable quality that enables them to talk casually and unofficially with their people, while maintaining that reserve which discourages undue familiarity. However, consideration for enlisted personnel is a must; good leaders always show concern for the welfare of their people.

The relationship between officers and their subordinates influences discipline. Officers should not fraternize with enlisted persons or attempt to be "one of the gang." This type of familiarity quickly undermines discipline. If subordinates become familiar and fail to keep the proper distance between themselves and a senior, the officer usually is at fault.

A great difference exists between familiarity and friendship. The officer who talks to subordinates in a friendly manner, taking a personal interest in them and showing concern for their problems, quickly gains their confidence and respect. Subordinates want to look to their seniors for guidance; they want to be proud of their senior petty officers and officers. Such leaders, because they are friendly and approachable, will be the first ones their people turn to for advice.

Being friendly with subordinates does not mean being easy with them. Leaders must handle breaches of discipline immediately, justly, and consistently. They cannot react severely to breaches one day and pass them off as insignificant the next. Such an approach can only result in confusion, poor morale, and distrust of the leader.

Two fundamental rules apply: (1) Never make a regulation you cannot or will not enforce; and (2) take immediate, fair action that leaves no doubt in the mind of the offenders as to why they are being punished.

In summary, a good relationship between officers and their subordinates must be founded on mutual respect. The measure of respect an officer inspires in enlisted personnel is a measure of that officer as a leader and a seaman.

Relations With the Leading Chief Petty Officer (LCPO)

Many new officers have difficulty adjusting to their new roles of authority. Just the simple case of having someone 10 to 15 years their senior calling them "sir" or "ma'am" often takes some getting used to. That coupled with the responsibilities of their billet and the Navy way of life may induce a "culture shock."

A very important person in the development of the new division officer is the leading chief petty officer (LCPO). As the division's technical authority and supervisor, the LCPO has the expertise and skill to accomplish all divisional tasks. LCPOs have traditionally contributed to the professional growth of junior officers through a hands-on approach of passing on their knowledge.

The LCPO has been around the Navy and the division longer than the new officer and stands ready to give support. New officers should make a point of talking with their LCPO about decisions affecting the division. When new officers develop a step-by-step plan to accomplish a task, they should discuss the plan with the LCPO. The LCPO has the experience and technical expertise to disassemble the plan and put it back together. The LCPO will give an honest opinion of the plan and provide suggestions for improvement. The LCPO will be supportive of the plan if it is sound but will also voice objection when in doubt.

The bottom line is this: The officer and the LCPO are a team working toward the same goals. The LCPO will bend over backwards to assist and teach the officer if allowed. Conversely, the LCPO will soon stop trying to help if the officer doesn't accept support. When that happens the officer ends up with numerous problems.

Relations With the Command Master Chief (CM/C)

Probably the most vital link between officer and enlisted personnel in a command is the command master chief (CM/C). The CM/C serves as the senior enlisted adviser to the commander or commanding officer on all matters relating to enlisted policy. The CM/C carries out and promotes command policy and enjoys special command trust and confidence extending to the administration and management of enlisted personnel.

The CM/C often provides guidance and counseling to enlisted personnel. Division officers should seek the advice of the CM/C on personal problems of members of their division. The CM/C, having years of experience in the Navy, possesses a wealth of knowledge. More often than not the CM/C is more than willing to assist both officers and enlisted personnel. Division officers can't expect the CM/C to run the division and perform their duties; but if they have problems in communicating with a member of the division, they can count on the CM/C to help.

FORMS OF ADDRESS

Custom, tradition, and social change determine the form of verbal address you use to introduce members of the naval service. Although tradition and military customs generally predominate, methods of addressing and introducing military personnel differ according to whether you are in civilian or military circles at the time. (See fig. 7-1.)

Except as provided in the paragraphs that follow, address or introduce all officers in the naval service by the title of their grade preceding the surname.

You may address officers of the Medical Corps or Dental Corps and officers of the Medical Service Corps or Nurse Corps having a doctoral degree as "Doctor." Likewise, you may address an officer of the Chaplain Corps as "Chaplain." However, if the doctor or chaplain prefers to be addressed by lieutenant, commander, captain, and so forth, honor that request. When addressing an officer whose grade includes a modifier (lieutenant commander for example), you may drop the modifier (lieutenant).

In general, calling officers of the rank of commander or above by their title and name is preferable; that is, "Commander ____________" rather than the impersonal "sir" or "ma'am." Address other officers in the same manner. However, in prolonged conversation, in which repetition would seem forced or awkward, use "sir" or "ma'am."

Address a chief warrant officer as "Chief Warrant Officer ______________." In military circles, address a midshipman as "Mr. or Ms. (or Miss) ______________." When with civilians, introduce the midshipman as "Midshipman ______________" and address the midshipman as "Mr. or Ms. (or Miss) ____________."

Aboard ship, address the regularly assigned commanding officer as "Captain" regardless of grade.

Introduce naval officers to civilians by title. The method of introduction should cue the civilians as to how they should address the officers from then on. If you were introducing an officer below the grade of commander to a civilian, you might say, "This is Lieutenant Jones. Mr. Jones is an old shipmate of mine." This introduction serves a double purpose; it gives the officer's grade, and it also gives the correct method of address, "Mr. Jones."

Because many people are not familiar with Navy grade insignia and corps devices, make any introduction, however brief, reasonably informative. You may introduce a female lieutenant with the words, "This is Lieutenant Johnson. Miss (or Ms. or Mrs.) Johnson is in the Nurse Corps," or "This is Lieutenant Commander Jones. Miss Jones is on duty in the Navy Department."

The Navy today is a cross-section of America. In the same family, one man may be a Chief Machinist's Mate and his brother a lieutenant. An ensign may have a sister who is a Yeoman second class, and so forth. General Pershing held the highest United States military rank, General of the Armies, but his son entered World War II as a private. The first Secretary of Defense entered World War I as a Seaman second class. Accordingly, even though the distinction between officer and enlisted personnel still exists in all formal and official relations, it does so less and less in nonmilitary relations.

PERSON ADDRESSED OR INTRODUCED	TO MILITARY		TO CIVILIAN	
	INTRODUCE AS:	ADDRESS AS:	INTRODUCE AS:	ADDRESS AS:
COMMANDER or above	COMMANDER (or appropriate rank) Smith	COMMANDER (or appropriate rank) Smith	COMMANDER[1] (or appropriate rank) Smith	COMMANDER (or appropriate rank) Smith
LIEUTENANT COMMANDER or below	LIEUTENANT COMMANDER (or appropriate rank) SMITH	COMMANDER [2] SMITH	LIEUTENANT COMMANDER[3] SMITH	MR. (Mrs., Miss, Ms.) SMITH
MEDICAL and/or DENTAL CORPS OFFICER	DR. SMITH[4]	DR. SMITH[4]	LIEUTENANT SMITH OF THE NAVY MEDICAL CORPS	DR. SMITH[4]
CHAPLAIN CORPS OFFICER	CHAPLAIN SMITH	CHAPLAIN SMITH	CHAPLAIN SMITH	CHAPLAIN
NAVY NURSE CORPS OFFICER	COMMANDER (or appropriate rank) SMITH	COMMANDER SMITH	COMMANDER SMITH OF THE NAVY NURSE CORPS	COMMANDER (Mr., Mrs., Miss, Ms.) SMITH
CHIEF WARRANT OFFICER	CHIEF WARRANT OFFICER SMITH	CHIEF WARRANT OFFICER SMITH	CHIEF WARRANT OFFICER SMITH	MR. (Mrs., Miss, Ms.) SMITH
MIDSHIPMAN	MIDSHIPMAN SMITH	MIDSHIPMAN SMITH	MIDSHIPMAN SMITH	MR. (Miss, Ms.) SMITH
CHIEF PETTY OFFICER	CHIEF[5] SMITH	CHIEF or CHIEF SMITH[5]	CHIEF YEOMAN[5] SMITH	MR. (Mrs., Miss, Ms.) SMITH
AVIATION CADET	AVIATION CADET SMITH	MR. SMITH	AVIATION CADET SMITH	MR. (Mrs., Miss, Ms.) SMITH
PETTY OFFICER	PETTY OFFICER SMITH	PETTY OFFICER SMITH	PETTY OFFICER SMITH	MR. (Mrs., Miss, Ms.) SMITH
SEAMAN	SEAMAN SMITH	SMITH	SEAMAN SMITH	MR. (Mrs., Miss, Ms.) SMITH

1. When not in uniform a captain or lieutenant would be introduced as "of the Navy" to distinguish the grade from the other services.
2. When addressing an officer whose grade includes a modifier (i.e., lieutenant commander) the modifier may be dropped.
3. A suggested form of introduction is: "This is LCDR Smith. Mr. (Mrs., Miss, Ms.) Smith is now stationed here." This indicates both (a) the officer's grade and (b) the form of address.
4. If a senior officer of the Medical or Dental Corps perfers to be addressed by title, such preference should be honored.
5. Prefixed by "Senior" or "Master" as appropriate.

Figure 7-1.—Introducing and addressing naval personnel.

Military and civilian practices differ in the introduction and address of enlisted personnel. Under military conditions, address and introduce petty officers of the Navy by their respective title followed by their last name. Address petty officers in the paygrades of E-7, E-8, and E-9 informally as "Chief ______" prefixed by "Senior" or "Master," if appropriate. Introduce them formally as "Chief Petty Officer __________" prefixed by "Senior" or "Master," if appropriate. Introduce and address petty officers in paygrades E-4 through E-6 both formally and informally as "Petty Officer __________." You aren't required to change the form of verbal address (by last name) of personnel in paygrades E-3 and below. However, when introducing them, precede their last name by "Seaman," "Fireman," "Airman," "Constructionman," and so forth, as appropriate.

Civilians often feel uncomfortable in social gatherings when addressing enlisted personnel as described in the preceding paragraph. Therefore, those outside the service customarily address enlisted personnel in the same manner they address civilians. In other words they prefix their names with "Mr.," "Mrs.," "Miss," or "Ms.," as the case may be. When introducing enlisted personnel to civilians, give their title and name, then the mode of address, such as "This is Petty Officer Smith. Mr. Smith will be visiting us for a while."

Only one response to an oral order is proper: "Aye, aye, sir/ma'am." This reply means more than yes. It indicates, I understand and will obey. Responses to an order such as "O.K., sir" or "Alright, sir" are improper. A senior may properly acknowledge a report made by a junior by saying, "Very well," but a junior never says "Very well" to a senior.

Use "sir/ma'am" as a prefix to an official report, statement, or question addressed to a senior. Also use it when addressing an official on duty representing a senior. For example, the officer of the deck (OOD), regardless of grade, represents the commanding officer; therefore, address the OOD as "sir/ma,'am."

Juniors addressing a senior should introduce themselves unless certain the senior knows them by sight.

Junior and senior officers observe certain differences in phrasing. Senior officers send their "compliments" to juniors. For example, "Admiral Smith presents his compliments to Captain Brown." Juniors send their "respects." When making a call upon a commanding officer, the junior is correct in saying, "Captain, I came to pay my respects." If an orderly or a secretary presents guests to the captain, ask the orderly or secretary to "please tell the captain that Ensign Jones would like to pay her respects."

In written correspondence, a senior officer may "call" attention to something, but a junior may only "invite" it. For many years, Navy custom prescribed that a junior writing a memorandum to a senior use the complimentary close "Very respectfully" and a senior writing to a junior use "Respectfully." Some officers and enlisted still follow that custom when writing memorandums. However, the Department of the Navy *Correspondence Manual*, SECNAVINST 5216.5C, states that "a complimentary close is not desired or required."

QUARTERDECK ETIQUETTE

Quarterdeck etiquette remains the same in peace and war. The quarterdeck has always been honored as part of the ship on which official ceremonies are conducted. It still retains its sanctity. Because of that sanctity, you cannot just walk on and off a ship as you would enter and leave your home; you must follow certain procedures.

Quarterdeck Conduct

The watch officer should strictly enforce the etiquette of the quarterdeck. The quarterdeck should be kept immaculate and its ceremonial character maintained. On the quarterdeck, officers and enlisted persons alike must adhere to the following rules of etiquette:

- Avoid appearing out of uniform.
- Never smoke.
- Refrain from putting hands in pockets.
- Don't engage in recreational athletics unless they are sanctioned by the captain, and then only after working hours.

Boarding a Ship in Uniform

When in uniform and boarding ANY ship flying the national ensign, salute in the following order:

1. Halt at the gangway, face aft, and salute the ensign.
2. Turn to the officer of the deck (OOD) and salute.

When returning to your own ship, salute the OOD and say, "I report my return aboard, sir/ma'am." The OOD returns both salutes and responds with, "Very well," or a similar expression.

When you salute the OOD upon boarding a ship other than your own, say, "I request permission to come aboard, sir/ma'am . . ." and then add the purpose of your visit; for example, ". . . to visit a friend," or ". . . to go to small stores."

When leaving your ship, reverse the order of saluting:

1. Salute the OOD first and say, "I have permission to leave the ship, sir/ma'am." When leaving a ship you have visited, salute the OOD and say, "I request permission to leave the ship sir/ma'am."
2. After receiving permission, face and salute the ensign (if it is flying) and depart.

Boarding a Ship in Civilian Attire

When in civilian attire and boarding a ship flying the national ensign, halt at the gangway, at attention, and face aft. Then, remaining at attention, turn to the OOD. If you are returning to your own ship, say, "I report my return aboard, sir/ma'am." The OOD salutes and responds with "Very well," or a similar expression. When boarding a ship other than your own, say, "I request permission to come aboard, sir/ma'am . . ." and then add the purpose of your visit. The OOD will then say, "Permission granted" or "Permission not granted."

When leaving a ship in civilian attire, reverse the procedure. First stand at attention in front of the OOD and say, "I have permission to leave the ship, sir/ma'am." After receiving permission, stand at attention facing the ensign (if it is flying) and depart.

Boarding and Departing Ships in a Nest

Sometimes destroyers, submarines, and other ships must tie up in nests alongside a repair ship, tender, or pier. At such times you may have to cross several ships to go ashore or return to your own ship. Upon boarding a ship that you must cross, salute the colors (if flying); then turn toward and salute the OOD, and request permission to cross. After receiving permission, proceed to cross without delay. When departing that ship, you are not required to salute the colors or OOD again. Repeat this crossing procedure until you reach your destination.

Boarding Ships With Petty Officers Standing OOD Watch

On many ships, particularly those of destroyer size and smaller, a first class or chief petty officer instead of an officer may be on the quarterdeck. Although you do not usually salute enlisted personnel, you must salute an enlisted person serving as OOD. You are saluting the position and authority represented—not the individual.

Small Boats Approaching the Ship at Anchor

The OOD should know who is approaching the ship at all times. At night the sentry, gangway watch, or quartermaster hails small boats nearing a vessel at anchor with "Boat ahoy!" The boat coxswain returns the hail with a response such as the following, depending on the personnel aboard:

"United States"—if the President of the United States is aboard

"Navy"—if the Secretary of the Navy is aboard

"Fleet"—if the commander in chief of the fleet is aboard

"Name of ship"—if the commanding officer is aboard

"Aye, aye"—if a commissioned officer is aboard

"No, no"—if a midshipman is aboard

"Hello"—if an enlisted person is aboard

"Passing"—if the boat does not intend to come alongside, regardless of passenger status

WARDROOM ETIQUETTE

The officers' mess is organized on a businesslike basis. All officers must contribute to a mess fund upon joining the mess. Officers receive a subsistence allowance from the Navy with which to pay the mess fund. As a courteous gesture officers should ask the mess treasurer, within the first 24 hours aboard, for their mess bill and mess entrance fee and pay them at once. The monthly mess assessments defray the cost of food as well as conveniences such as periodicals.

The mess treasurer, who is elected by the members, administers the mess fund. In messes where the treasurer does not also act as caterer, the commanding officer appoints a mess caterer. The treasurer then accounts for all receipts and expenditures, while the caterer takes responsibility for the purchase of food, preparation of menus, and supervision of service. Both offices are recognized as collateral duties, and attention is paid to them in the marking of officers' reports of fitness. As with all things, doing either job well requires study and application. Some caterers perform their tasks exceptionally well. They give their full attention to planning balanced diets and light appetizing luncheons and to planning with the Mess Management Specialist for new dishes and varied menus. At the close of each month, the mess treasurer gives the mess members a statement of the mess accounts.

The senior officer of the wardroom mess always welcomes junior officers and treats them as full-fledged members of the mess in every respect. Nevertheless, a junior officer should not be too forward in conversation or action. An error on the side of formality is more readily pardoned than one in the other direction.

Like many other phases of naval courtesy, wardroom etiquette, of necessity, undergoes many changes in time of war. In the interest of completeness, we will cover the rules of wardroom etiquette as they are in peacetime and then give some of the variations that would be brought about by war.

In Peacetime

The wardroom is the commissioned officers' mess and lounge room. The main peacetime rules of wardroom etiquette are as follows:

- Don't enter or lounge in the wardroom out of uniform.
- Except at breakfast, don't sit down to meals before the presiding officer does.
- If necessary to leave before the completion of the meal, ask to be excused.
- Introduce guests to wardroom officers, especially on small ships.
- Never be late for meals. If you are unavoidably late, make your apologies to the presiding officer.
- Don't loiter in the wardroom during working hours.
- Avoid wearing a cap in the wardroom, especially when your shipmates are eating.
- Avoid being boisterous or noisy.
- Don't talk shop continuously.
- Pay mess bills promptly.
- As a new officer, be a good listener.
- Don't discuss religion and politics.
- Don't express unfavorable comments and opinions about senior officers. Expressing such comments with the intention of being overheard by seniors is known as ''bulkheading.''

Good manners, with a consideration for other members and their guests, constitute the first principle to which all others are secondary.

The executive officer normally serves as the president of the mess. A small ship such as a destroyer, however, does not provide a separate mess for the commanding officer. In this case the CO, who eats meals in the wardroom, serves as president of the mess.

Officers are assigned permanent seats at the table, alternately, in the order of grade, to the right and left of the presiding officer. (Second ranking officer sits on the right of the presiding officer, third on the left, and so on.) The mess caterer occupies the seat opposite that of the presiding officer.

In Wartime

During a war, the routine of the wardroom is vastly different from that just described. Regular mealtimes are out of the question during general quarters. If, before starting to eat, officers always waited for the presiding officer to sit down, meals would be too irregular and delayed.

Instead of dining in the wardroom during wartime, many officers eat a hasty meal of sandwiches and coffee served topside whenever time allows. A rule about never being late for meals is hardly binding under such circumstances.

The seating arrangements in wardrooms may undergo changes during a war. A ship may scatter higher ranking officers among many tables rather than concentrate them at one place, where a chance enemy hit might wipe out all of them at once. Seating arrangements for persons eating in shifts are sometimes cross-sectioned by grade among the various shifts for the same reason.

In short, in peacetime, wardroom etiquette follows the old, established customs; but during a war, common sense and necessity dictate expedient conduct.

BOAT ETIQUETTE

Officers observe the following rules of boat etiquette:

- Unless otherwise directed by the senior officer present, officers enter boats in inverse order of rank (juniors first) and leave them in order of rank (juniors last).
- Juniors may stand and salute when a senior enters or leaves a boat, unless an officer or petty officer is in charge to render the honors. However, common sense and safety always prevail.
- When a senior officer is present, do not sit in the stern seats unless asked to do so.
- Leave the most desirable seats for seniors.
- Always offer a seat to a senior.
- When leaving a ship, get in the boat a minute before the boat gong or when the OOD says the boat is ready; don't make a last-second dash down the gangway.
- If the boat is crowded, juniors embark in the next boat.
- Juniors in boats take care to give seniors room to move about.
- Don't use the thwarts, gunwales, and decking of another boat as a walkway without permission. Don't request permission to use another boat as a walkway if another route is available.

SOCIAL CALLS

Except during wartime, when the practice is almost universally canceled, officers first reporting to a command make a visit of courtesy to the commanding officer within 48 hours. That is done even though they may have met the captain when they reported for duty. The executive officer usually arranges a time for the visit. Aboard ship, the social call is made in the captain's cabin, although in small ships the captain may dispense with the formality of courtesy visits.

At an activity ashore, the commanding officer may designate "at home" hours during which juniors make their social calls. At other stations, the commanding officer may hold periodic "hail and farewell" cocktail parties during which juniors make and return calls. Newly reported juniors should also call at the homes of their department head and executive officer within the first 2 weeks after they report aboard. If married, the spouse should accompany the officer.

Officers making courtesy visits to the commanding officer's cabin or office should never settle back for a long conversation; they should remain for approximately 10 minutes, unless requested to remain longer. They should be attentive and polite but not servile or wooden. Although they should allow their host to direct the conversation, they should try to add more to it than simply affirmatives and negatives. Officers should refrain from asking leading questions about their new duty, about military problems facing their host, or about intimate details concerning the commanding officer's private life.

Officers invited to dinner should take particular pains to be punctual and to leave before their welcome has worn out. They shouldn't stay all afternoon or evening. A visit of 45 minutes to an hour after a meal is all that courtesy demands; they should ask to be excused within this time unless urged to remain. If a guest of honor who is not a houseguest is present, other guests should await that individual's departure, if possible.

CONDUCT IN FOREIGN COUNTRIES

When ashore in uniform in foreign countries, remember that your conduct will represent the conduct of all members of the United States naval service. Scrupulously respect the laws and customs of any foreign country. Infractions of a seemingly unimportant nature, even though committed unwittingly, arouse resentment and may result in serious complications. Under no circumstances should you enter into an altercation or argument with anyone abroad. In case of trouble of any nature, refer the matter to the appropriate U.S. naval authority ashore or afloat. If senior naval guidance is not available, consult the consular officer or diplomatic representatives of the United States.

United States customs regulations explicitly state that exemption from payment of duty for articles purchased abroad covers only articles intended for personal use of the returning traveler. The term *personal use* as used in the regulations refers to articles purchased with the traveler's own money, either for personal use or as a gift to others. The import of large quantities of material, under any agreement that permits transfer of goods after importation, violates the regulations. Offenders are liable to heavy fines as well as to imprisonment. Travelers should keep an accurate record of purchases made abroad so that they can make a correct customs declaration. The prices actually paid for articles purchased abroad, either in the currency of the country where purchased or the equivalent in United States currency, must be stated in the customs declaration.

THE SALUTE

One of the essentials of military courtesy is the salute. Regulations governing its use are founded on military etiquette and, as such, are deeply rooted in traditions and customs of the service. A military organization functions efficiently only as a unit, and any common bond or identifying symbol that furthers the feeling of comradeship strengthens that unity.

The custom of saluting is a time-honored demonstration of courtesy among military personnel the world over. It expresses mutual respect and pride in the military service.

In form, the salute is simple and dignified, but that gesture has great significance. The privilege of saluting is generally denied prisoners because their status is unworthy of the comradeship of military personnel.

The salute probably originated in the days of chivalry, when knights in mail (flexible armor) customarily raised their visors to friends for the purpose of identification. Because of strict gradations or rank, the junior was required to make the first gesture. Another school of thought traces the salute back to a custom at the time of the Borgias. Since assassinations by dagger were common at that time, men began approaching each other with raised hand, palm to the front, to show they concealed no weapon.

In the American Navy, however, history indicates that the hand salute came to use directly from the British Navy. In the earliest days of British military units, the junior uncovered when meeting or addressing a senior. Gradually, the act of removing the cap was simplified into merely touching the cap or, if uncovered, the head (forelock). The act finally evolved into the present form of salute.

PROPER MANNER OF SALUTING

Except when walking, stand at attention when saluting. In any case, turn your head and eyes toward the person saluted unless doing so is inappropriate, such as when a division in ranks salutes an inspecting officer on command. Raise the right hand smartly until the tip of the forefinger touches the lower part of the headgear or forehead above and slightly to the right of the right eye. Join and extend thumb and fingers. Turn the palm slightly inward until the person saluting can just see its surface from the corner of the right eye. Position the upper arm parallel to the ground with the elbow slightly in front of the body. Incline the forearm at a 45-degree angle with the hand and wrist in a straight line. Complete the salute (after it is returned) by dropping the arm to its normal position in one sharp, clean motion. (See fig. 7-2.)

Execute the first position of the hand salute when six paces from the person saluted, or at the nearest point of approach, if more than six paces. (Thirty paces is generally regarded as maximum saluting distance.) Hold the first position until the person saluted has passed or returns the salute.

According to naval custom, a word of greeting should accompany the hand salute. The junior

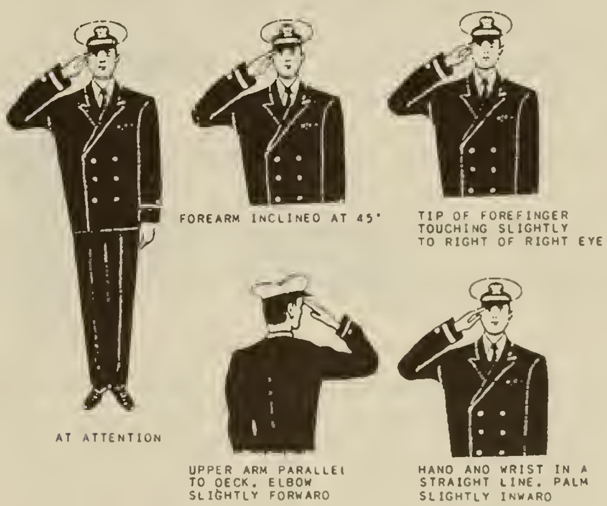

FOREARM INCLINED AT 45°
TIP OF FOREFINGER TOUCHING SLIGHTLY TO RIGHT OF RIGHT EYE
AT ATTENTION
UPPER ARM PARALLEL TO DECK, ELBOW SLIGHTLY FORWARD
HAND AND WRIST IN A STRAIGHT LINE, PALM SLIGHTLY INWARD

Figure 7-2.—Hand salute.

stands at attention; looks the senior straight in the eye; and, depending upon the time of day, extends one of the following greetings:

From first rising until noon: "Good morning, . . ."

From noon until sunset: "Good afternoon, . . ."

From sunset until turning in: "Good evening, . . ."

Preferably, the junior should call the senior by grade and name, such as "Commander Jones," rather than by the impersonal "sir" or "ma'am."

Naval custom permits saluting with the left hand when you cannot render a salute with the right hand. Army and Air Force custom permits only right-hand salutes.

Avoid making the following common errors in saluting:

Bowing the head when giving the salute.

Dropping the salute before it has been returned.

Holding the arm awkwardly high or letting it sag too low.

Saluting while on the double.

Avoiding the gaze of the person saluted.

Saluting with pipe, cigar, or cigarette in the mouth or in the hand.

Waiting too long to begin a salute.

Saluting in a casual or perfunctory manner.

WHEN TO SALUTE

In the Navy, as in practically every military service in the world, everybody salutes—from the bottom to the top of the ranks and down again. Enlisted personnel salute all officers, and every officer salutes seniors. All who are saluted return the salute. When uncovered, the person saluted usually acknowledges a salute by an appropriate oral greeting or nod of the head. (See fig. 7-3.)

Extend salutes to officers of the Navy, Army, Air Force, Marine Corps, and Coast Guard and to foreign military officers whose governments are formally recognized by the government of the United States. When in uniform, extend salutes to officers of the Naval, Army, Air Force, Marine Corps, and Coast Guard Reserves and the National Guard. Public Health Service and National Oceanic and Atmospheric Administration officers also rate a salute when serving with the armed forces of the United States.

When several officers in company are saluted, all return the salute when the senior officer in the company returns the salute accorded. For example, if an ensign is walking with a commander and an Army captain approaches, the ensign waits for the Army captain to salute the commander. As the commander returns the salute, the ensign salutes simultaneously. If two or more persons of various grades accompany the senior officer, the same rule applies: they render the salute when the senior officer returns the salute accorded.

Civilians entitled by reason of their position to gun salutes or other honors also are entitled by custom to the hand salute.

Five types of personal salutes are rendered: hand salute; hand salute under arms; present arms; sword salute; and "eyes right," given by personnel passing in review.

Aboard Ship

All officer and enlisted personnel on board a ship of the Navy salute the following officers:

All flag officers (officers above the grade of captain)

The commanding officer

Visiting officers senior to themselves on every occasion of meeting, passing near, or being addressed

On the first daily meeting, personnel salute all senior officers attached to their ship. (Many ships consider salutes rendered at quarters to suffice for this first salute of the day.) They salute when addressing or being addressed by seniors. They also salute an inspecting officer during the course of an official inspection. When the progress of a senior officer may be impeded, all personnel clear a path and stand at attention facing the senior officer until he or she has passed.

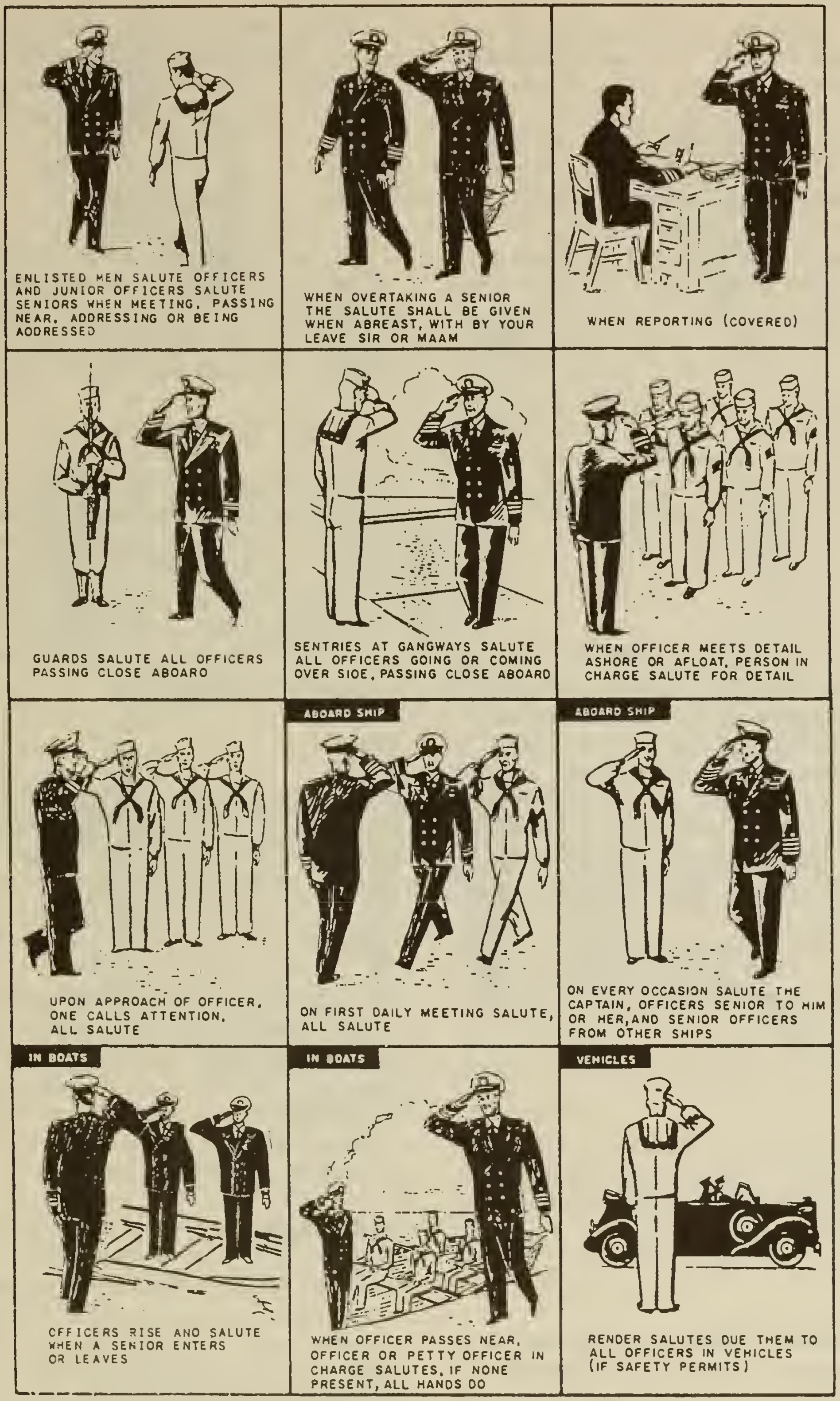

ENLISTED MEN SALUTE OFFICERS AND JUNIOR OFFICERS SALUTE SENIORS WHEN MEETING, PASSING NEAR, ADDRESSING OR BEING ADDRESSED
WHEN OVERTAKING A SENIOR THE SALUTE SHALL BE GIVEN WHEN ABREAST, WITH BY YOUR LEAVE SIR OR MAAM
WHEN REPORTING (COVERED)
GUARDS SALUTE ALL OFFICERS PASSING CLOSE ABOARD
SENTRIES AT GANGWAYS SALUTE ALL OFFICERS GOING OR COMING OVER SIDE, PASSING CLOSE ABOARD
WHEN OFFICER MEETS DETAIL ASHORE OR AFLOAT, PERSON IN CHARGE SALUTE FOR DETAIL
UPON APPROACH OF OFFICER, ONE CALLS ATTENTION, ALL SALUTE
ABOARD SHIP
ON FIRST DAILY MEETING SALUTE, ALL SALUTE
ABOARD SHIP
ON EVERY OCCASION SALUTE THE CAPTAIN, OFFICERS SENIOR TO HIM OR HER, AND SENIOR OFFICERS FROM OTHER SHIPS
IN BOATS
OFFICERS RISE AND SALUTE WHEN A SENIOR ENTERS OR LEAVES
IN BOATS
WHEN OFFICER PASSES NEAR, OFFICER OR PETTY OFFICER IN CHARGE SALUTES, IF NONE PRESENT, ALL HANDS DO
VEHICLES
RENDER SALUTES DUE THEM TO ALL OFFICERS IN VEHICLES (IF SAFETY PERMITS)

Figure 7-3.—When to salute.

In Boats

Personnel in charge of a boat that is not underway salute officers that come alongside or pass nearby. If no one is in charge, all those in the boat render the salute. Boat coxswains salute all officers entering or leaving their boats. (Although personnel customarily stand when saluting, this formality is dispensed with if it risks the safety of the boat.) When boat awnings are spread, enlisted personnel sit at attention while saluting; they do not rise. Officers seated in boats rise when rendering salutes to seniors who are entering or leaving.

When boats pass each other with embarked officers or officials in view, the senior officer and coxswain in each boat render hand salutes. Officers seated in passing boats do not rise when saluting; the coxswain rises to salute unless it is dangerous or impracticable to do so.

In Civilian Attire

When a junior recognizes a senior in the armed services as one who rates a salute, the junior initiates a proper greeting even though the senior may be in civilian clothing. If the senior is covered, the junior may render a salute. In time of war, however, an officer not in uniform may be deliberately avoiding disclosure of his or her naval membership. Therefore, the junior should be discriminate about following the normal (peacetime) rule.

Normally, you do not render salutes while wearing civilian clothing. If necessary to avoid embarrassment to the naval service, render a salute when in doubt.

In a Group

If enlisted personnel or officers are standing together and a senior officer approaches, the first to see the senior calls, ''Attention!'' All then face the senior officer and salute.

Overtaking

No junior should overhaul and pass a senior without permission. When for any reason the junior must pass, he or she does so to the left. When abreast of the senior, the junior salutes and asks, ''By your leave, sir/ma'am?'' The senior replies, ''Very well,'' and returns the salute.

Reporting

When reporting on deck or out-of-doors ashore, all personnel remain covered and salute accordingly. When reporting in an office, juniors uncover upon approaching the senior but do not salute.

Seated

An enlisted person being seated and without particular occupation rises upon the approach of an officer; faces the officer; and salutes, if covered. If both remain in the same general vicinity, they need not repeat the compliments.

Seniority Unknown

In most cases officers will know the relative seniority of those with whom they are in frequent contact. However, in many situations, especially ashore, that is an obvious impossibility. To be safe, salute at such times, doing so without delay. As a matter of fact, in practically every case where uncertainty exists, regardless of grade, the rule is to render the salute.

Sentries

Sentries at gangways salute all officers going or coming over the side. They also salute when passing or being passed by officers close aboard in boats or otherwise.

Vehicles

Enlisted personnel and officers salute all senior officers riding in vehicles. Those in the vehicle both render and return salutes, as may be required. The driver of a vehicle must salute if the vehicle is at a halt but may omit the salute while the vehicle is in motion to avoid endangering the safety of the occupants.

Watch Relief

Many watches aboard ship do not require the watch stander to be covered. However, personnel standing watch on the bridge are covered. When personnel enter the pilothouse, they salute the Boatswain's Mate of the Watch (BMOW) and request permission to enter. The helmsman and lee helmsman salute the conning officer and request permission to relieve the helm and lee helm. The conning officer and the OOD also

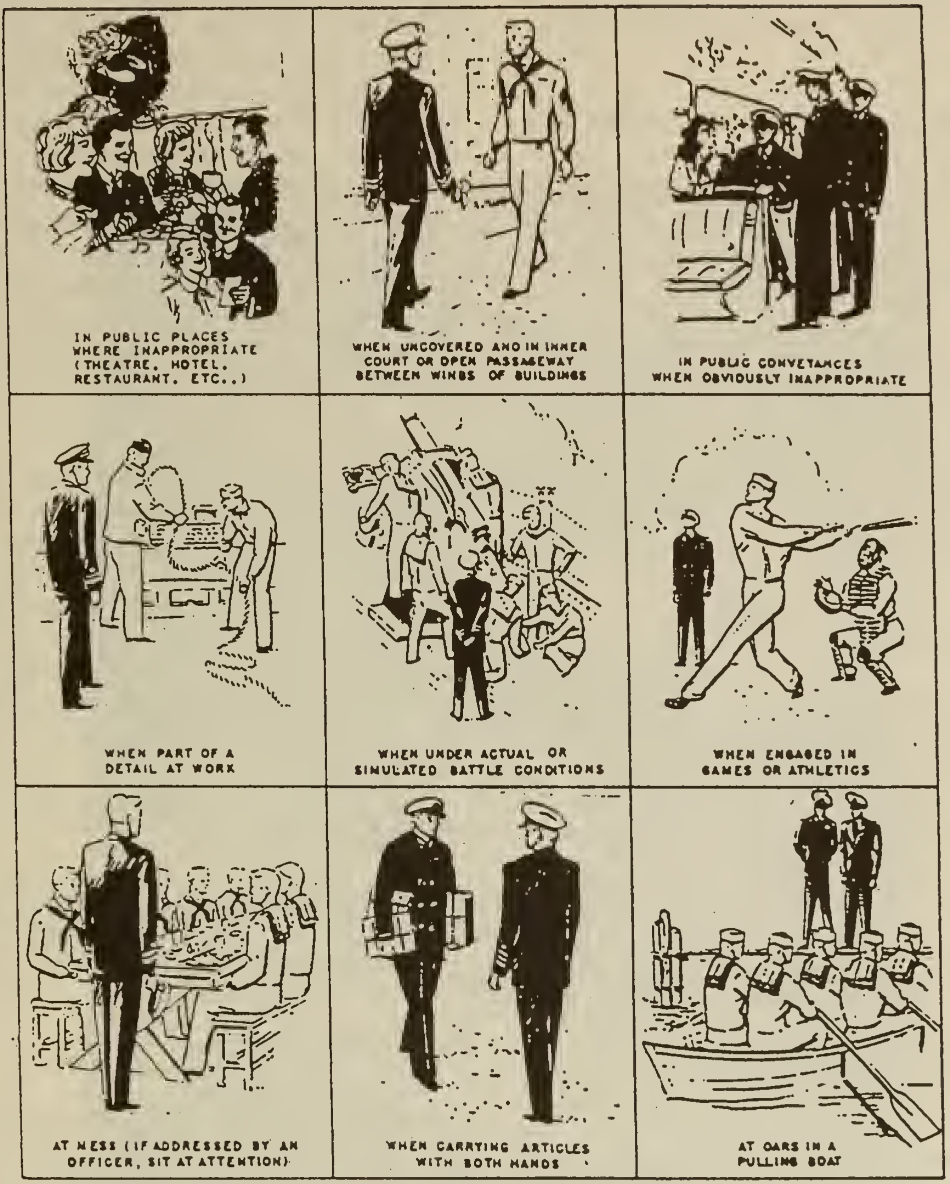

IN PUBLIC PLACES WHERE INAPPROPRIATE (THEATRE, HOTEL, RESTAURANT, ETC.,)
WHEN UNCOVERED AND IN INNER COURT OR OPEN PASSAGEWAY BETWEEN WINGS OF BUILDINGS
IN PUBLIC CONVEYANCES WHEN OBVIOUSLY INAPPROPRIATE
WHEN PART OF A DETAIL AT WORK
WHEN UNDER ACTUAL OR SIMULATED BATTLE CONDITIONS
WHEN ENGAGED IN GAMES OR ATHLETICS
AT MESS (IF ADDRESSED BY AN OFFICER, SIT AT ATTENTION)
WHEN CARRYING ARTICLES WITH BOTH HANDS
AT OARS IN A PULLING BOAT

Figure 7-4.—When not to salute.

exchange salutes with the personnel who relieve them. Personnel customarily salute whenever the commanding officer enters the pilothouse. They also salute whenever making reports to the commanding officer.

WHEN NOT TO SALUTE

Saluting is improper in the following situations (fig. 7-4):

When uncovered, except where failure to salute might cause embarrassment or misunderstanding

In formation, except on command

On work detail (Person in charge of detail salutes.)

When engaged in athletics or assembled for recreation or entertainment

In public places where obviously inappropriate (theaters, restaurants, etc.)

In public conveyances

When a member of the guard is engaged in performance of a duty that prevents saluting

In action or under simulated combat conditions

At mess (When addressed, stop eating and show respectful attention.)

HAND SALUTES ON FORMAL OCCASIONS

Formal occasions require hand salutes according to the situation. At a military ceremony and when the occasion requires, an officer or enlisted person salutes rather than uncovers, as that is the traditional mark of respect.

When an officer officially attends a military funeral, a salute is appropriate at the following times:

Whenever honors are rendered

When the body is removed from the hearse to the chapel, from the chapel to the caisson, and from the caisson to the grave

When the volleys are fired

When ''Taps'' is sounded

Participants at a nonmilitary funeral or burial service may follow the civilian custom of uncovering (rather than saluting) when such honors are called for. For example, they might uncover during the procession to the grave or the lowering of the body.

Jewish custom calls for remaining covered during all religious ceremonies. The usual rules regarding uncovering do not apply when a representative of that faith conducts the service.

Additionally, personnel may wear a skullcap (yarmulke) with the uniform whenever a military cap, hat, or other headgear is not prescribed. They also may wear a skullcap underneath military headgear as long as it does not interfere with the proper wearing, functioning, or appearance of the prescribed headgear.

During National Anthem

When the national anthem is played, persons in the naval service stand at attention, facing the colors, if displayed; otherwise, they face the sound of the music. If covered, they begin the salute at the first note and end it at the last note. When in ranks, the officer in charge orders, ''Attention,'' and renders the appropriate hand or sword salute for the formation. In boats, only the boat officer—or, in the officer's absence, the coxswain—stands and salutes when the national anthem is played. Other members of the crew, and passengers who are already standing, stand at attention. All others remain seated at attention. Personnel in civilian clothing standing at attention in a boat during the playing of the national anthem do not render the ''hand-over-heart'' salute. That is an exception to the general rule.

The above rules apply only to a formal rendition of the national anthem. For example, if you were in uniform and heard ''The Star-Spangled Banner'' being broadcast over the radio, you would not be expected to stop, face the music, and salute. However, you would render the required honors if you were attending a public gathering where the anthem was being broadcast as part of the ceremony.

During Parades

Military personnel salute the flag when they are passed by or pass the flag being carried uncased in a parade or military formation.

Funerals and Religious Services

During funerals (fig. 7-5), officers and enlisted personnel remain covered while in the open but uncover during the committal service at the grave. During burial services at sea, they remain covered throughout the service.

During religious services aboard ship and during formal religious ceremonies outdoors ashore (such as Easter sunrise service), members remain uncovered throughout the ceremony.

In general, a military person uncovers during a religious ceremony but remains covered during a military ceremony. Religious ceremonies include church services, civilian funerals, or burial services an officer or enlisted person attends as a friend of a relative rather than as a representative of the Navy. Military funerals and burials

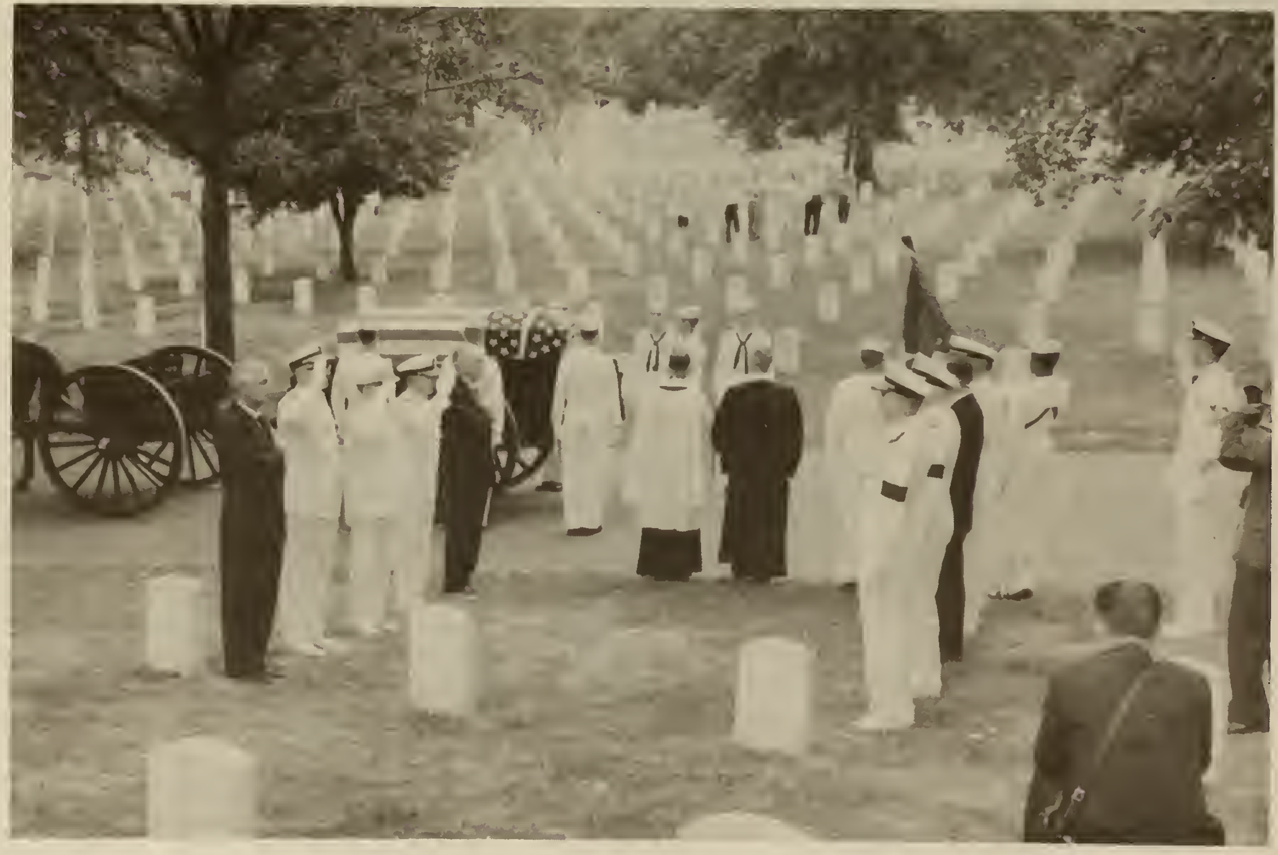


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Figure 7-5.—During military funerals, officers and enlisted persons remain covered while in the open.

at sea are regarded primarily as military ceremonies.

Service personnel wearing civilian clothing at a military funeral follow the etiquette prescribed for civilians.

Honors to the Colors

Naval ships not underway hoist the national ensign at the flagstaff aft at 0800 and lower it at sunset. Likewise, they hoist and lower the union jack at the jackstaff forward at the same time. At colors, they smartly hoist the ensign, lower it slowly, and never allow it to touch the deck. At both morning and evening colors, ships sound "Attention," and all officers and enlisted personnel topside face the ensign and render the salute. At shore stations and, in peacetime, on board large vessels where a band is present, they play the national anthem during the ceremonies. In the absence of a band, a bugler, if available, sounds "To the Colors" at morning ceremonies and "Retreat" at sunset formalities. (When underway, naval ships usually fly the ensign both day and night from the mast and do not hoist the jack.) In half-masting the ensign, personnel first raise it to the truck or peak and then lower it to half-mast. Before lowering the ensign from half-mast, they first raise it to the truck or peak and then lower it.

During colors, boats underway within sight or hearing of the ceremony either lie to or proceed at the slowest safe speed. Boat officers—or in their absence, coxswains—stand and salute except when dangerous to do so. Other persons in the boat remain seated or standing and do not salute. Vehicles within sight or hearing of colors stop. Persons riding in vehicles sit at attention. The person in charge of a military vehicle (but someone other than the driver) renders the hand salute.

When a vessel under the flag of a nation formally recognized by the government of the United States salutes a ship of our Navy by dipping its ensign, our ship returns the salute dip for dip. U.S. naval vessels never initiate the dipping of the ensign.

In the large assortment of flags carried by American men-of-war, only one flies above the ensign—the church pennant (fig. 7-6). It is displayed during a divine service held by a chaplain or visiting church dignitary.

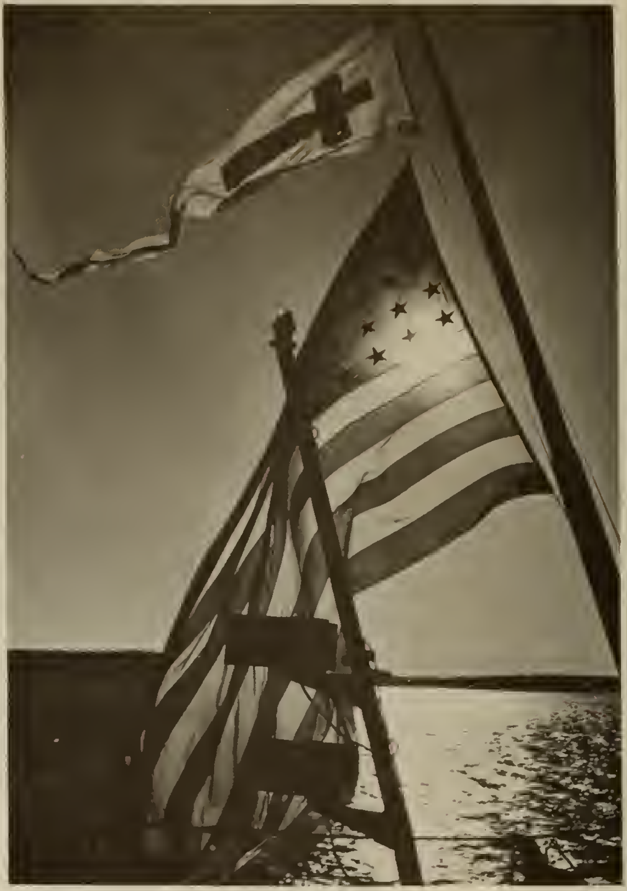

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Figure 7-6.—The church pennant, displayed during divine services, is the only emblem that may be flown above the ensign.

SUMMARY

Courtesy can be defined as an act or verbal expression of consideration or respect for others. When a person acts with courtesy toward another, the courtesy is likely to be returned. We are courteous to our seniors because we are aware of their greater responsibilities and authority. We are courteous to our juniors because we are aware of their important contributions to the Navy's mission.

In the military service, and particularly in the Navy where personnel must live and work in rather close quarters, we must practice courtesy in all that we do on and off duty. Military courtesy is important to everyone in the Navy. If you know and practice military courtesy, you will make favorable impressions and display a self-assurance that will carry you through many difficult situations. Acts of respect and courtesy are required of all members of the naval service; the junior member takes the initiative, and the senior member returns the courtesy.

While not all-inclusive, this chapter has shown you some of the basic guidelines for military courtesies and naval etiquette. As with all other endeavors, you must also apply a good measure of common sense.

REFERENCES

Accommodation of Religious Practices, SECNAVINST 1730.8, Department of the Navy, Office of the Secretary, Washington, D.C., 1988.

Chief Petty Officer Indoctrination Course, NAVEDTRA 10825-B, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1987.

Military Requirements for Chief Petty Officer, NAVEDTRA 10047-A, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1988.

Military Requirements for Senior and Master Chief Petty Officer, NAVEDTRA 10048-A, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1988.

United States Navy Regulations, 1990, Department of the Navy, Office of the Secretary, Washington, D.C., 1990.

SUGGESTED READING

Bearden, Bill, and Bill Wedertz, *The Bluejacket's Manual*, 21th ed., United States Naval Institute Press, Annapolis, Md., 1990.

Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

HE KNOWS THE ROPES

WHEN WE SAY THAT SOMEONE KNOWS THE ROPES WE INFER THAT HE KNOWS HIS WAY AROUND AT SEA AND IS QUITE CAPABLE OF HANDLING MOST NAUTICAL PROBLEMS. THROUGH THE YEARS THE PHRASE'S MEANING HAS CHANGED SOMEWHAT. ORIGINALLY, THE STATEMENT WAS PRINTED ON A SEAMAN'S DISCHARGE TO INDICATE THAT HE KNEW THE NAMES AND PRIMARY USES OF THE MAIN ROPES ON BOARD SHIP. IN OTHER WORDS, "THIS MAN IS A NOVICE SEAMAN AND KNOWS ONLY THE BASICS OF SEAMANSHIP."

CHAPTER 8

HONORS AND CEREMONIES

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the procedures for conducting morning and evening colors.
2. Identify the procedures for saluting the national ensign when boarding a ship or when meeting a military formation.
3. Name the individual who is accorded "Hail to the Chief."
4. Describe the U.S. Navy's regulations for gun salutes.
5. Describe the U.S. Navy's regulations for conducting passing honors.
6. Describe the U.S. Navy's regulations for displaying the national ensign, union jack, and distinctive marks of vessels.
7. Describe the ceremony conducted by a ship passing Washington's Tomb.
8. Describe the ceremonies conducted by the Navy on President's Day, Independence Day, and Memorial Day.
9. Describe the ceremony conducted by a ship passing the USS *Arizona* memorial.
10. Describe the procedure for conducting military funerals.
11. Describe the procedure for placing a U.S. Navy ship in commission.
12. Describe a formal change-of-command ceremony.

Honors and ceremonies have been an integral part of military courtesy and naval custom for hundreds of years. As a part of naval custom, we have traditionally rendered honors to ships, to high ranking individuals, and to nations. We often render honors in the form of ceremonies. We make festive occasions of many naval honors and ceremonies at which the Navy is seen at its best. We perform ceremonies as formal acts on public occasions.

The Navy has too many types of honors and ceremonies and too many occasions on which they are performed for us to include all of them in this chapter. Instead, we will discuss some of the more common situations involving a formal ceremony or honor and the behavior required of you during the event. We have used excerpts from chapter 12 of *United States Navy Regulations* in many sections of this chapter.

HONORS TO NATIONAL ANTHEMS AND NATIONAL ENSIGNS

When naval bands play the national anthem of the United States, "The Star Spangled Banner," they play it in its entirety. They play it as written and prescribed in the official U.S. Navy Band arrangement, which is designated as the official Department of Defense arrangement. The following rules apply to the rendering of the national anthem:

- The official U.S. Navy Band's playing of the national anthem of the United States, or of any other country, as a part of a medley is prohibited.

- When a foreign national anthem is prescribed in connection with honors, and performing the national anthem of the United States is also considered appropriate, the national anthem of the United States is performed last.

- On other occasions when foreign national anthems are performed, the national anthem of the United States is performed last, except when performed in conjunction with morning colors.

Whenever the national anthem of the United States is played, all naval service personnel not in formation stand at attention and face the national ensign; if the national ensign is not being displayed, they face the source of the music. When covered, they salute at the first note of the anthem. Persons in formation are brought to order arms or called to attention as appropriate. The formation commander faces in the direction of the music or ensign and renders the salute for the unit. Persons in formation participating in a ceremony, on the formation commander's command, follow the procedure prescribed for such persons during colors; persons in civilian clothes comply with the rules and customs established for civilians.

Personnel show the same respect prescribed during the playing of the national anthem of the United States during the playing of a foreign national anthem.

MORNING AND EVENING COLORS

Naval commands ashore and aboard ships not underway observe the ceremonial hoisting and lowering of the national ensign at 0800 and sunset. At 0800, this ceremony is known as morning colors; at sunset, it is known as evening colors. Commands carry out this ceremony as prescribed in *Navy Regulations* as follows:

- The guard of the day and the band are paraded in the vicinity of the point of hoist of the ensign.

- ''Attention'' is sounded, followed by the playing of the national anthem by the band.

- At morning colors, the ensign is started up at the beginning of the music and hoisted smartly to the peak or truck. At evening colors, the ensign is started from the peak or truck at the beginning of the music and lowered at a pace with the music so as to be completed at the last note.

- At the completion of the music, the bugle call ''Carry On'' is sounded.

- In the absence of a band, ''To the Colors'' is played by the bugle at morning colors, and ''Retreat'' at evening colors. The salute is rendered as prescribed for the national anthem.

- In the absence of music, a whistle sounds ''Attention'' and ''Carry On'' to begin and end the salute. ''Carry On'' is sounded as soon as the ensign is completely lowered.

- During colors, boats underway within sight or hearing of the ceremony lie-to or proceed at the slowest safe speed. Boat officers (or in their absence, coxswains) stand and salute except when dangerous to do so. Other persons in the boat remain seated or standing and do not salute.

- During colors, vehicles within sight or hearing of the ceremony stop. Persons riding in such vehicles remain seated at attention.

- After morning colors, if foreign warships are present, the national anthem of each nation represented is played. Anthems are played in the order in which a gun salute would be fired to, or exchanged with, the senior official or officer present of each nation. This is provided so that when a ship is in a foreign port, the national anthem of the port is played immediately after morning colors, followed by the national anthems of other foreign nations present.

SALUTES TO THE NATIONAL ENSIGN

Each person in the naval service, upon boarding a ship of the Navy, salutes the national ensign if it is flying. Each person stops on reaching the upper platform of the accommodation ladder or the shipboard end of the brow; faces the national ensign; renders the salute; and then, in turn, salutes the officer of the deck. On leaving the ship, the person renders the salute in inverse order. The officer of the deck returns both salutes.

When passed by or passing the national ensign being carried, uncased, in a military formation, all persons in the naval service salute. Persons in vehicles or boats follow the procedure prescribed for such persons during colors.

The salutes prescribed above are also rendered to foreign national ensigns and aboard foreign men-of-war.

"HAIL TO THE CHIEF"

The traditional musical selection "Hail to the Chief" is designated as a musical tribute to the President of the United States. As such, naval bands do not perform it as a tribute to other dignitaries. Naval personnel give "Hail to the Chief" the same honor as that accorded during renditions of the national anthem or "To the Colors."

GUN SALUTES

Gun salutes have been a tradition of navies throughout history. The U.S. Navy follows specific regulations concerning gun salutes.

SALUTING SHIPS AND STATIONS

The Secretary of the Navy or the Secretary's duly authorized representative designates certain ships and stations as "saluting ships and stations." These ships and stations fire gun salutes as prescribed in *Navy Regulations*. Other ships and stations do not fire gun salutes, unless directed to do so by the senior officer present on exceptional occasions when courtesy requires them.

Gun salutes to the flag of the President or the Secretary of State are carried out as follows:

- A 21-gun salute is fired to the flag of the President by the following:

  —Each ship falling in with a ship displaying such flag, arriving at a place where such flag is displayed ashore, or present when such flag is broken

  —A naval station when a ship displaying such flag arrives at the naval station or when such flag is broken by a ship present

  —A flag or general officer assuming command or, while in command, breaking the flag of an increased grade in the presence of a ship or naval station displaying the flag of the President

- Under the circumstances prescribed, a 19-gun salute is fired to the flag of the Secretary of State when the Secretary is acting as a special foreign representative of the President. Table 8-1 lists the gun salutes rendered to civil officials of the United States when they are on official visits.

AUTHORITY TO FIRE GUN SALUTES TO OFFICERS IN THE UNITED STATES NAVAL SERVICE

As prescribed in *Navy Regulations*, gun salutes for officers and officials entitled to 17 or more guns are fired on the occasion of each official visit of the individual concerned (fig. 8-1). Gun salutes

Officer	Gun Salute	
	Arrival	Departure
Chairman, Joint Chiefs of Staff	19	19
Chief of Staff, U.S. Army	19	19
Chief of Naval Operations	19	19
Chief of Staff, U.S. Air Force	19	19
Commandant of the Marine Corps	19	19
General of the Army	19	19
Fleet Admiral	19	19
General of the Air Force	19	19
Generals	17	17
Admirals	17	17
Naval or other military Governor, commissioned as such by the President, within the area of his jurisdiction	......	17
Vice Admiral or Lieutenant General	......	15
Rear Admiral or Major General	......	13
Rear Admiral or Bridgadier General	......	11
Other commissioned officers	......	......

Figure 8-1.—Gun salutes rendered to commissioned military officers of the United States on the occasions of their official visits.

Table 8-1.—Gun salutes rendered to civil officials of the United States on the occasions of their official visits

Official	Gun Salute	
	Arrival	Departure
President	21	21
Ex-President or President-elect	21	21
Secretary of State when acting as special foreign representative of the President	19	19
Vice President	....	19
Speaker of the House of Representatives	....	19
Governor of a state of the United States	....	19
Chief Justice of the United States	....	19
Ambassador, High Commissioner, or special diplomatic representative whose credentials give him authority equal to or greater than that of an Ambassador	....	19
Associate Justices of Supreme Court	....	19
US representative to the UN	....	19
Secretary of Defense	19	19
Deputy Secretary of Defense	19	19
Cabinet officer other than Secretary of Defense	....	19
Secretaries of the Army, Navy, and Air Force	19	19
Director of Defense Research and Engineering	19	19
President pro tempore of the Senate	....	19
Assistant Secretaries of Defense	17	17
General Counsel of the DOD	17	17
Undersecretaries of the Army, Navy, and Air Force	17	17
Assistant Secretaries of the Army, Navy, and Air Force	17	17
Governor General or Governor of a commonwealth or possession of the United States or area under United States administration	....	17
Other Undersecretaries of Cabinet, the Solicitor General, the Deputy Attorney General, and the Deputy Postmaster General	....	17
Members of Congress	....	17
Envoy Extraordinary and Minister Plenipotentiary	....	15
Minister Resident	....	13
Charge d'Affaires	....	11
Career Minister, or Counselor of Embassy or Legation	....	....
Consul General; or Consul or Vice Consul when in charge of a Consulate General	....	11
First Secretary of Embassy or Legation	....	....
Consul; or Vice Consul when in charge of a Consulate	....	7
Mayor of an incorporated city	....	....
Second or Third Secretary of Embassy or Legation	....	....
Vice Consul when only representative of United States, and not in charge of a Consulate General or Consulate	....	5
Consular Agent when only representative of the United States	....	....

for officers and officials entitled to 15 guns or less are not fired unless so ordered by the senior officer present or higher authority.

GUN SALUTES TO THE SENIOR OFFICER PRESENT

When a flag officer embarked in a ship of that officer's command arrives in port and is the senior officer present or when a flag officer assumes command and becomes the senior officer present, that officer is saluted by the former senior officer present.

The senior officer of one or more ships arriving in port salutes the flag officer who is the senior officer present. The arriving senior officer's flagship fires a gun salute on the following occasions:

- When a flag officer who is the senior officer present assumes command
- When a flag officer who is the senior officer present is relieved of command or is advanced in grade

The senior officer present salutes the relieving senior officer present at the following times:

- When a flag officer embarked in a ship of the senior officer's command arrives in port and is the senior officer present
- When a flag officer assumes command and becomes the senior officer present

When a flag officer who is not the senior officer present assumes command, that officer fires a salute to the senior officer present.

RETURNING GUN SALUTES

United States ships and stations observe the following regulations in returning gun salutes:

- A salute fired to the nation by a foreign ship arriving in port is returned gun for gun.
- A salute fired to a flag or general officer by a foreign ship or station is returned gun for gun.
- A salute fired in honor of the President of the United States or the Secretary of State when acting as a special representative of the President is not returned.
- A salute fired by the flag or general officer's flagship or headquarters in honor of the flag or general officer is not returned.
- A salute fired in honor of an anniversary, celebration, or solemnity is not returned.
- Subject to the provisions of *Navy Regulations*, a salute fired in honor of a United States officer or official is returned with the number of guns specified for the grade of the flag or general officer rendering the salute, or, if not a flag or general officer, with seven guns.
- No return salute may be expected in the case of a salute fired by a United States ship or station in honor of the following officials or occasions. Otherwise, a salute fired in honor of a foreign nation or a foreign official or officer is returned gun for gun.

  —A foreign sovereign

  —A head of state

  —A member of a reigning royal family

  —A special representative of a head of state

  —A foreign anniversary

  —A celebration

  —A solemnity

  —An official visit

- No officer, except a flag or general officer, is saluted with guns except in return for a gun salute rendered by that officer.
- No officer of the armed services, while in civilian clothes, is saluted with guns, unless such officer is at the time acting in an official civil capacity.
- No salute is fired between sunset and sunrise, before 0800, or on Sunday except when international courtesy so dictates or when related to death ceremonies. A gun salute in honor of an official or officer

Official	Uniform	Ruffles and flourishes	Music	Guard	Remarks
President	As prescribed by senior officer present.	4	National Anthem	Full	Man rail, unless otherwise directed by senior officer present.
Secretary of State when special foreign representative of the President.	. . . ″	4	. . . ″	. . . ″	Crew at quarters.
Vice President	Uniform of the day		Hail Columbia	. . . ″	. . . ″
Secretary of Defense, Deputy Secretary of Defense, or Secretary of the Navy; Director of Defense, Research and Engineering.	. . . ″		National Anthem	. . . ″	. . . ″
An Assistant Secretary of Defense, Undersecretary, or an Assistant Secretary of the Navy.	. . . ″		. . . ″	. . . ″	. . . ″

Figure 8-2.—Passing honors between ships and, when practicable, between ships and naval stations.

who arrives before 0800 is fired at 0800 unless the day is Sunday or the officer has departed meanwhile. If the day is Sunday, the salute is fired on Monday; if the official or officer has departed meanwhile, the salute is not fired. In case of a gun salute at 0800, the first gun of the salute is fired immediately upon the completion of morning colors or the last note of the last national anthem.

PASSING HONORS

"Passing honors" are those honors, other than gun salutes, rendered on occasions when ships or embarked officials or officers pass, or are passed, close aboard. "Close aboard" means passing within 600 yards for ships and 400 yards for boats. These rules are interpreted liberally to ensure that appropriate honors are rendered.

PASSING HONORS BETWEEN SHIPS

Passing honors between ships consists of each ship sounding "Attention" and all persons in view on deck and not in ranks rendering the hand salute. Passing honors are exchanged between ships of the Navy and between ships of the Navy and the Coast Guard passing close aboard.

In addition, a ship of the Navy passing close aboard a ship or naval station displaying the flag of the officials indicated therein renders the honors prescribed in figure 8-2. When a ship displaying such flag passes close aboard a naval station, that station also renders the honors prescribed in figure 8-2 when practicable.

PASSING HONORS TO OFFICIALS AND OFFICERS EMBARKED IN BOATS

A ship of the Navy being passed close aboard by a boat displaying the flag or pennant of the indicated officials and officers renders the honors prescribed in figure 8-3.

Persons on the quarterdeck salute when boats pass close aboard in which a flag officer, a unit commander, or a commanding officer is embarked under the following circumstances:

- When the officer in the boat is in uniform, which is indicated by the display of the national ensign in United States ports
- When a miniature of a flag or pennant is displayed in addition to the national ensign in foreign ports

Official	Ruffles and flourishes	Music	Guard	Remarks
President	4	National Anthem	Full	"Attention" sounded, and salute by all persons in view on deck. If directed by the senior officer present, man rail.
Secretary of State when special foreign representative of President.	4	. . . "	. . . "	"Attention" sounded, and salute by all persons in view on deck.
Vice President	4	Hail Columbia	. . . "	. . . "
Secretary of Defense; Deputy Secretary of Defense; Secretary of the Navy; Director of Defense, Research and Engineering; Assistant Secretary of Defense; and Undersecretary or an Assistant Secretary of the Navy.	4	Admiral's March	. . . "	. . . "
Other Civil offical entitled to honors on official visit.				. . . "
Officer of an armed service.				. . . "

Figure 8-3.—Passing honors to officials and military officers embarked in boats.

SEQUENCE IN RENDERING PASSING HONORS

Ships render passing honors in the following sequence:

1. When the bow of one ship passes the bow or stern of the other, the junior sounds attention when the bow of one ship passes the bow or stern of the other. If the senior is embarked in a boat, the junior sounds attention before the boat is abreast of the quarterdeck.
2. The music, if required, sounds off.
3. "Carry on" is sounded when the prescribed honors have been rendered and acknowledged.

DISPENSING WITH PASSING HONORS

Passing honors are not rendered after sunset or before 0800 except when international courtesy requires. They also are not exchanged between Navy ships engaged in tactical evolutions outside port. The senior officer present may direct that passing honors be dispensed with in whole or in part.

Passing honors are not rendered by or required of ships with small bridge areas, such as submarines, particularly when in restricted waters.

CREW AT QUARTERS ON ENTERING OR LEAVING PORT

The crew is paraded at quarters during daylight on entering or leaving port on occasions of ceremony except when weather or other circumstances make it impracticable or undesirable to do so. Ordinarily, occasions of ceremony are construed as visits that are not operational; as visits at home port when departing for or returning from a lengthy deployment; as visits to foreign ports not visited recently; and as other special occasions so determined by a superior. In lieu of parading the entire crew at quarters, an honor guard may be paraded in a conspicuous place on weather decks.

DISPLAY OF NATIONAL ENSIGN, UNION JACK, AND DISTINCTIVE MARK FROM SHIPS AND CRAFT

Ships and craft of the Navy display the national ensign, the union jack, their personal flag

SHIPS OR CRAFT	NATIONAL ENSIGN DISPLAYED	UNION JACK DISPLAYED	PERSONAL FLAG, COMMAND PENNANT, OR COMMISSION PENNANT DISPLAYED
ACTIVE:			
In commission	Yes	Yes	Yes
In service	Yes	Yes	No[2]
INACTIVE:			
In commission, in reserve	Yes	Yes	Yes
In service, in reserve	Yes	Yes	No
Out of commission, in reserve	No[1]	No	No
Out of service, in reserve	No[1]	No	No
SPECIAL STATUS:			
In commission, special	Yes	Yes	Yes
In service, special	Yes	Yes	No
Out of commission, special	No[1]	No	No
Out of service, special	No[1]	No	No

[1] National ensign shall be displayed if necessary to indicate the national character of the ship or craft.

[2] Applies to display of commission pennant only. A flag officer or unit commander embarked may display a personal flag or command pennant.

Figure 8-4.—Display of ensign, union jack, and distinctive mark from ships and craft.

or pennant, or their commission pennant as specified in figure 8-4.

The distinctive mark of a commissioned Navy ship or craft is a personal flag or a command pennant of an officer of the Navy or a commission pennant. The distinctive mark of a commissioned hospital ship of the Navy is the Red Cross flag.

A ship or craft does not display more than one distinctive mark at one time, nor does it display the commission pennant and the personal flag of a civil official at one time.

Except as prescribed in *Navy Regulations* for certain occasions of ceremony and when civil officials are embarked, ships display the flag or pennant day and night. Ships display the distinctive mark at the after masthead or, in a mastless ship, from the loftiest and most conspicuous hoist.

When not underway ships display the national ensign from the flagstaff and the union jack from the jackstaff from 0800 until sunset. A ship that enters port at night, when appropriate, displays the national ensign from the gaff at daylight for a time sufficient to establish its nationality. Other ships of war customarily display their national ensigns in return.

Unless the senior officer present directs otherwise, a ship underway displays the ensign during daylight from the gaff under the following circumstances. (If the ship has mast-mounted booms and stays that would interfere with the hoisting, lowering, or flying of the ensign, it displays the ensign on the triatic stay.)

- Getting underway and coming to anchor
- Falling in with other ships
- Cruising near land
- During battle

The union jack displayed from the jackstaff is the size of the union of the national ensign displayed from the flagstaff.

Ships display the union jack at a yardarm to denote that a general court-martial or court of inquiry is in session.

NATIONAL ENSIGN AT COMMANDS ASHORE

The national ensign is displayed from 0800 to sunset near the headquarters of every command ashore. When the proximity of headquarters of two or more commands makes the display of separate ensigns inappropriate, the ensign is displayed at the headquarters of the senior.

DISPLAY OF NATIONAL ENSIGN IN BOATS

Waterborne boats of the naval service display the national ensign at the following times:

- When underway during daylight in a foreign port
- During dress ship or full-dress ship
- When going alongside a foreign vessel
- When an officer or official is embarked on an official occasion
- When a flag or general officer, unit commander, commanding officer, or chief of staff, in uniform, is embarked in a boat assigned to the officer's command or in one assigned for that officer's personal use
- At such other times as may be prescribed by the senior officer present

DIPPING THE NATIONAL ENSIGN

When any vessel, under the United States registry or the registry of a nation formally recognized by the United States government, salutes a ship of the Navy by dipping its ensign, it is answered dip for dip. If not already being displayed, the national ensign is hoisted for the purpose of answering the dip. An ensign being displayed at half-mast is hoisted to the truck or peak before a dip is answered.

No ship of the Navy dips the national ensign unless in return for such compliment.

Of the colors carried by a naval force on shore, only the battalion or regimental colors are dipped in rendering or acknowledging a salute.

Submarines, or other vessels on which dipping would endanger the lives of its personnel, are not required to dip the ensign.

HALF-MASTING THE NATIONAL ENSIGN AND UNION JACK

When the national ensign is half-masted, if not previously hoisted, it is first hoisted to the truck or peak and then lowered to half-mast. Before it is lowered from half-mast, the ensign is hoisted to the truck or peak and then lowered.

When the national ensign is half-masted, the union jack, if displayed from the jackstaff, is likewise half-masted. Personal flags, command pennants, and commission pennants are not displayed at half-mast except as prescribed in *Navy Regulations* for a deceased official or officer.

When directed by the President, the national ensign is flown at half-staff at military facilities and aboard naval vessels and at stations abroad. It is flown at half-mast whether or not the national ensign of another nation is flown full-staff alongside that of the United States.

BOW INSIGNIA AND FLAGSTAFF INSIGNIA FOR BOATS

A boat regularly assigned to an officer for personal use carries insignia on each bow as follows:

- For a flag or general officer, the stars as arranged in that officer's flag
- For a unit commander who is not a flag officer, a replica of the command pennant
- For a commanding officer or for a chief of staff who is not a flag officer, an arrow

Certain boats display the ensign and the personal flag or pennant of an officer on a staff fitted at the peak with certain devices. A boat assigned for the personal use of a flag or general officer, unit commander, chief of staff, or commanding officer, or on which a civil official is embarked carries a staff fitted with the following devices:

- A spread eagle for an official or officer whose official salute is 19 or more guns
- A halberd

  —for a flag or general officer whose official salute is less than 19 guns or

  —for a civil official whose official salute is 11 or more guns but less than 19 guns
- A ball

  —for an officer of the grade, or relative grade, of captain in the Navy or

  —for a career minister, a counselor or first secretary of embassy or legation, or a consul
- A star for an officer of the grade, or relative grade, of commander in the Navy
- A flat truck

  —for an officer below the grade, or relative grade, of commander in the Navy or

  —for a civil official not listed above and for whom honors are prescribed for an official visit

DRESS AND FULL-DRESS SHIP

Flying the largest national ensign assigned to the ship from the flagstaff with a national ensign displayed at each masthead is known as dress ship. A personal flag or command pennant will not be substituted with a national ensign. The national ensigns displayed at the masthead are of uniform size. When a substantial difference in heights of the mastheads exists, using different sizes of national ensigns is appropriate.

In addition to dressing of the mastheads, displaying a rainbow of signal flags reaching from the foot of the jackstaff to the mastheads and from those points to the foot of the flagstaff is known as full-dress ship. Dress ship and full-dress ship requirements are prescribed in the Navy Department publication *Flags, Pennants, and Customs* (NTP-13A). Peculiarly masted or mastless ships make a display as little modified from the rainbow effect as possible.

During dress or full-dress ship in honor of a foreign nation, the national ensign of that nation replaces the United States national ensign at the main, or at the masthead in the case of a single-masted ship. During dress or full-dress ship in honor of more than one nation, the ensign of each nation is displayed at the main, or at the masthead in a single-masted ship.

Should half-masting of the national ensign be required on occasions of dress or full-dress ship, only the national ensign at the flagstaff is half-masted.

When full-dress ship is prescribed, the senior officer present may direct that dress ship be substituted if, in that officer's opinion, the state of the weather makes such action advisable. The senior officer present may also, under such circumstances, direct that the ensigns be hauled down from the mastheads after they have been hoisted.

Dress ship or full-dress ship is prescribed for ships not underway from 0800 until sunset. Neither dress ship nor full-dress ship is prescribed for ships underway.

SENIOR OFFICER PRESENT AFLOAT PENNANT

Ships use the ''starboard'' pennant as the senior officer present afloat (SOPA) pennant.

If two or more Navy ships are docked together in port, the ship in which the senior officer present afloat (SOPA) is embarked displays the SOPA pennant, except when the SOPA's personal flag clearly indicates that officer's seniority. It is displayed from the inboard halyard of the starboard main yardarm.

SPECIAL CEREMONIES, ANNIVERSARIES, AND SOLEMNITIES

Navy ships, stations, and activities perform special ceremonies in honor of certain memorials, solemnities, and events, such as funerals, the commissioning of ships, and holidays. Although they perform special ceremonies for several holidays, they observe all national holidays.

NATIONAL HOLIDAYS

Naval ships, stations, and activities observe the following national holidays and such other days as may be designated by the President:

New Year's Day, the 1st of January

Martin Luther King Day, the third Monday in January

President's Day, the third Monday in February

Memorial Day, the last Monday in May

Independence Day, the 4th of July

Labor Day, the first Monday in September

Columbus Day, the second Monday in October

Veterans Day, the 11th of November

Thanksgiving Day, the fourth Thursday in November

Christmas Day, the 25th of December

Whenever any of the above designated dates fall on Saturday, the preceding day is observed as a holiday; whenever such dates fall on Sunday, the following day is observed.

CEREMONIES FOR NATIONAL HOLIDAYS

On President's Day (the third Monday in February) and on Independence Day (the 4th of July), every ship of the Navy in commission, not underway, displays full-dress ship. At noon each saluting ship and each naval station equipped with a saluting battery fires a national salute of 21 guns.

At noon on Memorial Day (the last Monday in May), all saluting ships and all naval stations having a saluting battery fire a salute of 21 minute-guns. All ships and naval stations display the national ensign at half-mast from 0800 until the completion of the salute or until 1220 if no salute is fired or to be fired.

When the 4th of July occurs on Sunday, all special ceremonies are postponed until the following day.

SHIPS PASSING WASHINGTON'S TOMB

When passing Washington's Tomb, located in Mount Vernon, Virginia, between sunrise and sunset, Navy ships perform the following ceremony insofar as practicable: The full guard and band are paraded, the bell tolled, and the national ensign half-masted at the beginning of the tolling of the bell. When opposite Washington's Tomb, the guard presents arms; persons on deck salute, facing in the direction of the tomb; and "Taps" is sounded. The national ensign is hoisted to the truck or peak and the tolling ceases at the last note of "Taps," after which the national anthem is played. Upon completion of the national anthem, "Carry On" is sounded.

SHIPS PASSING THE USS ARIZONA MEMORIAL

When passing the USS *Arizona* memorial in Pearl Harbor, Hawaii, between sunrise and sunset, ships execute passing honors (fig. 8-5). To

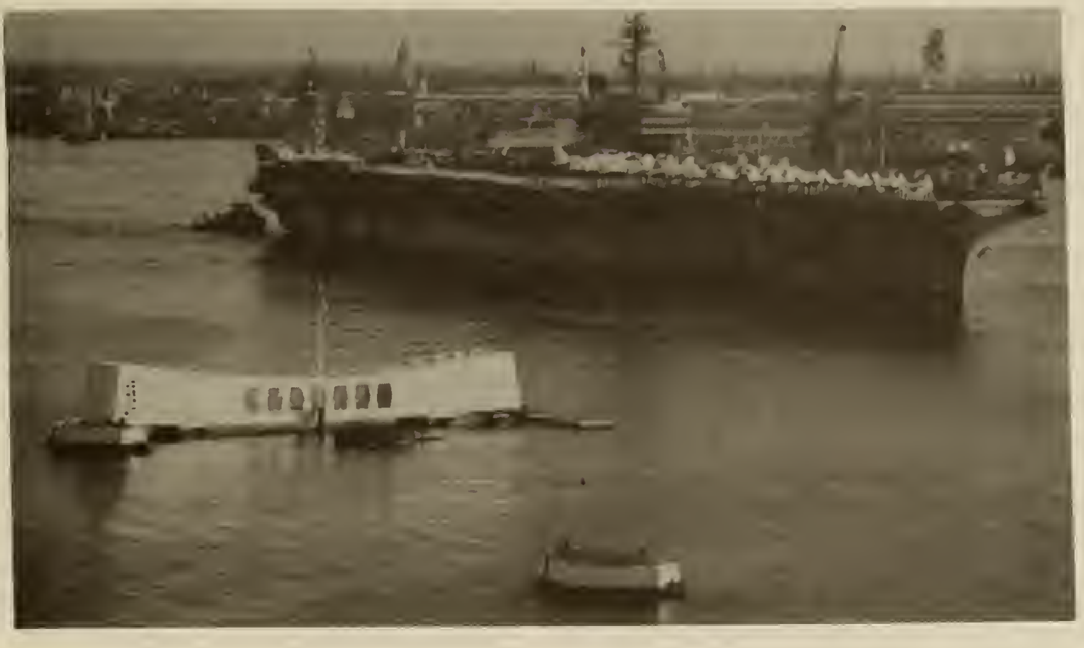

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Figure 8-5.—Crew members manning the rail of the aircraft carrier USS Kitty Hawk (CV-63) as the ship passes the USS Arizona memorial.

execute passing honors, ships sound "Attention" and all persons in view on deck and not in ranks render the hand salute.

FUNERALS

If no chaplain or clergy is available, the commanding officer (CO) or the CO's representative conducts the funeral service of a Navy member.

Six pallbearers and six body bearers escort the body of a Navy member during a military funeral. The pallbearers are usually of the same grade or rating as the deceased. If a sufficient number of foreign officers of appropriate grade attend the funeral, they may be invited to serve as additional pallbearers.

Those attending a military funeral may wear the mourning badge at their discretion. Escorts for a military funeral wear the mourning badge as prescribed in the *U.S. Navy Uniform Regulations* for their own command.

Boats taking part in a funeral procession display the national ensign at half-mast. If the deceased was a flag or general officer; or at the time of death, a unit commander; or a commanding officer of a ship, that officer's flag or command pennant, or a commission pennant, is draped in mourning. It is then displayed at half-mast from a staff in the bow of the boat carrying the body.

The casket is covered with the national ensign. The ensign is placed on the casket so that the union is at the head and over the left shoulder of the deceased. The ensign is removed from the casket before it is lowered into the grave or committed to the deep.

Persons in the naval service salute when the body is carried past them, while the body is being lowered into the grave or committed to the deep, and during the firing of volleys and the sounding of "Taps."

Three rifle volleys are fired after the body has been lowered into the grave or committed to the deep, following which "Taps" is sounded by the bugle. In a foreign port, when a ship has not obtained permission to land an armed escort, the volleys are fired over the body after it has been lowered into the boat alongside.

During burial at sea, the ship is stopped, if possible, and the ensign is displayed at half-mast from the beginning of the funeral service until the body has been committed to the deep. Further display of the ensign at half-mast may be prescribed, depending on the circumstances, by the senior officer present.

Funeral honors are not rendered between sunset and sunrise. When circumstances require burial of the dead at night, such funeral services as are feasible are conducted.

SHIP COMMISSIONING CEREMONY

Although *Navy Regulations* does not specifically prescribe the ceremony for commissioning a Navy ship, custom has established a formal and impressive routine. The crew of the ship being commissioned assembles and stands in formation, headed by the division officer or department heads. Other ship's officers assemble facing the ceremony, usually behind the executive officer. Distinguished guests and participants in the ceremony are seated. The first watch and the officer of the deck (OOD) take their stations on the quarterdeck. Crew members station themselves at the ready, standing by the national ensign, union jack, and commission pennant or personal flag halyards.

The officer making the transfer (usually an officer of flag rank) opens the ceremony by reading the orders for delivery of the ship to the U.S. Navy. "Attention" is sounded by the bugle, the national anthem is played, and all flags, including the personal flag of the officer making the transfer, are hoisted simultaneously. With this act the ship is officially commissioned.

The officer effecting the transfer delivers the ship to the new commanding officer by saying, "I hereby deliver the USS [*name of ship*]." The new commanding officer reads his or her orders and states, "I hereby assume command of the USS [*name of ship*]," and orders the executive officer to "set the watch." The executive officer, in turn, directs the OOD to set the watch, and the ship's boatswain (or chief boatswain's mate in small ships) pipes the watch. The OOD and the other members of the watch take their assigned watch stations.

Customarily the CO delivers a short speech. The speech usually touches on the work of the building yard, the name of the ship, the history of any previous ships of the same name, and other items of interest.

If the state, city, or sponsor intends to make a presentation of silver or another gift, this portion of the ceremony then takes place. A benediction by the ship or yard chaplain concludes the ceremony.

After the ceremony, the officer's wardroom, chief petty officer's (CPO's) mess, and crew's mess host a reception or luncheon to entertain the guests.

This ceremony provides an impressive and fitting way for a new ship to enter the U.S. Navy.

CHANGE-OF-COMMAND CEREMONY

Following *U.S. Navy Regulations*, a commanding officer about to be relieved of command will, at the time of turning over command, call all hands to muster. With the crew at quarters, the commanding officer reads the orders of detachment and relinquishes command to the prospective commanding officer, who then assumes command as directed.

The change-of-command ceremony, which is rich in naval tradition, is quite formal. The turnover of a Navy command is the formal passing of responsibility, authority, and accountability of command from one officer to another.

With all hands at quarters, with officers and crew in ranks, the senior officer participating in the ceremony parades and readies for inspection an appropriate guard. Guests are seated. Although the main purpose of the ceremony is the turnover of responsibility from one officer to another, it provides the outgoing CO the opportunity to say goodbye to the officers and enlisted personnel. It also provides an opportunity for the new CO to greet the crew. Normally, the uniform should be full dress with swords for participants and service dress for military guests. After the reading of orders, the departing CO turns to the relieving officer and says, "Sir or Ma'am, I am ready to be relieved." The prospective CO steps forward, reads the orders of assignment to command, faces the departing CO, salutes, and says, "Sir or Ma'am, I relieve you." The unit commander, if present, is saluted by the new CO, who says, "Sir or Ma'am, I report for duty." The new CO makes a few brief remarks, usually confined to wishing the departing CO well and stating that all orders of his or her predecessor remain in effect. After the exchange-of-command salute, the old commission pennant is lowered and a new one broken. The old commission pennant is then presented to the departing CO. As with the ship commissioning ceremony, the officer's wardroom, CPO's mess, and crew's mess usually host a reception.

SUMMARY

Few occasions stir the emotions of people more than a formal naval ceremony. Most of these ceremonies instill a great amount of pride in our naval service for all who attend.

In your naval career you will attend many formal ceremonies. No matter what role you fill, take a moment to look around you to reflect on the traditions and customs that have been carried on for many years. These traditions and customs will make you proud to be a part of the greatest Navy in the world.

REFERENCES

United States Navy Regulations, 1990, Department of the Navy, Office of the Secretary, Washington, D.C., 1990.

SUGGESTED READING

Mack, W.P., and R.W. Connell, *Naval Ceremonies, Customs, and Traditions*, 5th ed., Naval Institute Press, Annapolis, Md., 1980.

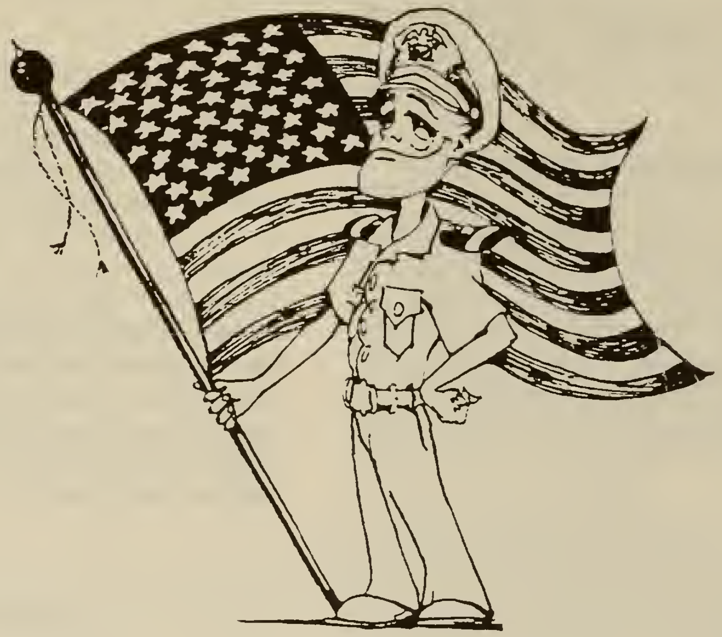
Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

ENSIGN

THE NAME GIVEN THE NAVY'S JUNIOR-MOST OFFICER DATES TO MEDEVIAL TIMES. LORDS HONORED THEIR SQUIRES BY ALLOWING THEM TO CARRY THE ENSIGN (BANNER) INTO BATTLE. LATER THESE SQUIRES BECAME KNOWN BY THE NAME OF THE BANNER ITSELF.

IN THE U.S. ARMY THE LOWEST RANKING OFFICER WAS ORIGINALLY CALLED "ENSIGN" BECAUSE HE, LIKE THE SQUIRE OF OLD, WOULD ONE DAY LEAD TROOPS INTO BATTLE AND WAS TRAINING TO THAT END. IT IS STILL THE LOWEST COMMISSIONED RANK IN THE BRITISH ARMY TODAY.

WHEN THE U.S. NAVY WAS ESTABLISHED, THE AMERICANS CARRIED ON THE TRADITION AND ADAPTED THE RANK OF ENSIGN AS THE TITLE FOR ITS JUNIOR COMMISSIONED OFFICERS.



CHAPTER 9

UNIFORMS, INSIGNIA, AND AWARDS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the differences between flag officers, line officers, and staff corps officers.
2. Identify the uniforms and corps devices worn by naval officers.
3. Identify the different types of aiguillettes and those personnel authorized to wear them.
4. Describe the use of mourning badges.
5. Identify midshipmen's and officer candidate's uniform markings.
6. Describe the differences between rates and ratings for enlisted personnel.
7. Identify the various breast insignia worn by naval personnel.
8. Define the terms associated with naval medals and awards.
9. Determine the order of precedence for wearing various naval medals and awards and the manner in which they are worn.
10. Describe various uniform modifications that may be authorized by your prescribing authority.
11. Identify the Navy's facility for ordering uniforms through the mail.

SIGNIFICANT DATES

5 Sep. 1776	Navy adopts its first uniform.
1 Jul. 1933	Navy Clothing Depot, Brooklyn, N.Y., established.

Every naval officer should be an authority on the grades, ratings, and insignia of the Navy. An officer should also be able to recognize and know the meaning of the insignia worn by other branches of the armed forces.

Because Navy ways might be new to you, many questions probably have crossed your mind. For example, at times you may have thought, What is that officer's rank? What does that petty officer's insignia mean? What does that collar device stand for?

This chapter describes the types of uniforms and corps/grade devices of naval officers and midshipmen. It also describes the uniforms, rating insignia, and distinguishing marks of enlisted personnel in the Navy. Included are comparisons of rank, rate, and grade insignia of all service members.

OFFICER PERSONNEL

As in other branches of the armed services, officers of the Navy have precedence according to their grade. Within their grade, officers have precedence according to their date of appointment to that grade. Officers are junior to those with a higher grade. Within grades, officers are junior to those with an appointment date prior to theirs. Although the word *rank* is often used interchangeably with *grade*, this is incorrect. Officers hold a grade (captain, commander, etc.); they outrank a junior, or they rank from the date of appointment to their grade (date of rank).

All commissioned officers (including a chief [commissioned] warrant officer) hold a commission granted by the President and signed by the Secretary of the Navy.

OFFICERS' GRADES AND TITLES

The following shows how naval officers' grades correspond to those of the other services:

Navy	Army, Marine Corps, Air Force
Admiral	General
Vice admiral	Lieutenant general
Rear admiral, upper half (UH)	Major general
Rear admiral, lower half (LH)	Brigadier general
Captain	Colonel
Commander	Lieutenant colonel
Lieutenant commander	Major
Lieutenant	Captain
Lieutenant (junior grade)	First lieutenant
Ensign	Second lieutenant
Chief warrant officer (W-4)	Same as Navy*
Chief warrant officer (W-3)	Same as Navy*
Chief warrant officer (W-2)	Same as Navy*

*The U.S. Air Force does not have a chief warrant officer rank.

Flag Officer

Officers of the grade of rear admiral and above are known as flag officers. Flag officers have the privilege of flying a personal flag on the ship or station to which they are attached. The number of stars decorating the flag indicates the officer's grade as follows:

Rear admiral (LH)	1 star
Rear admiral (UH)	2 stars
Vice admiral	3 stars
Admiral	4 stars

The personal flag of an officer of the line has a blue field with white stars. The personal flag of a staff corps officer has a white field with blue stars.

Admiral

The title of admiral comes from the Arabic *amir-al-bahr*, meaning ruler of the sea. The Moorish also used the term *emir* as the title given to the senior ranking officer in the Moorish army. See figure 9-1 for a description of the term *admiral*. The French and English used the title long before the discovery of America, but the grade was not established in the U.S. Navy until 1862 (along with commodore).

In 1944 Congress established the five-star grade of fleet admiral (a comparable grade of General of the Army). The first officers appointed to this grade were Admirals William D. Leahy; Ernest J. King; Chester W. Nimitz; and William F. Halsey, Jr. Authority for the grade of fleet admiral no longer exists (it expired with the death of Admiral Nimitz in 1966). Its reestablishment will require another act of Congress.

Commodore

Until 1862 all captains in the United States Navy commanding or having commanded squadrons of ships were customarily addressed as commodore, though never commissioned as such. Commodore became a fixed grade in 1862 and then was abandoned as a grade on the active list in 1899. In 1943 the grade of commodore was reestablished for temporary service in time of war or national emergency.

Line and Staff Corps Officers

Navy officers who are eligible to assume command of ships (and stations) are designated unrestricted line officers, being in the line of command. Other officers serve as members of the several staff corps or as specialists in various fields.

ADMIRAL

AN ADMIRAL IS THE SENIOR RANKING OFFICER IN THE U.S. NAVY, BUT HIS TITLE COMES FROM THE NAME GIVEN THE SENIOR RANKING OFFICER IN THE MOORISH ARMY OF MANY YEARS AGO. A MOORISH CHIEF WAS AN "EMIR" AND THE CHIEF OF ALL CHIEFS WAS THE "EMIR-AL." OUR ENGLISH WORD IS DERIVED DIRECTLY FROM THE MOORISH.

Figure 9-1.—The origin of the term ''admiral.''

The staff corps of the Navy consists of the following nine members, listed in their order of precedence:

Medical*

Supply

Chaplain

Civil Engineer

Judge Advocate General

Dental

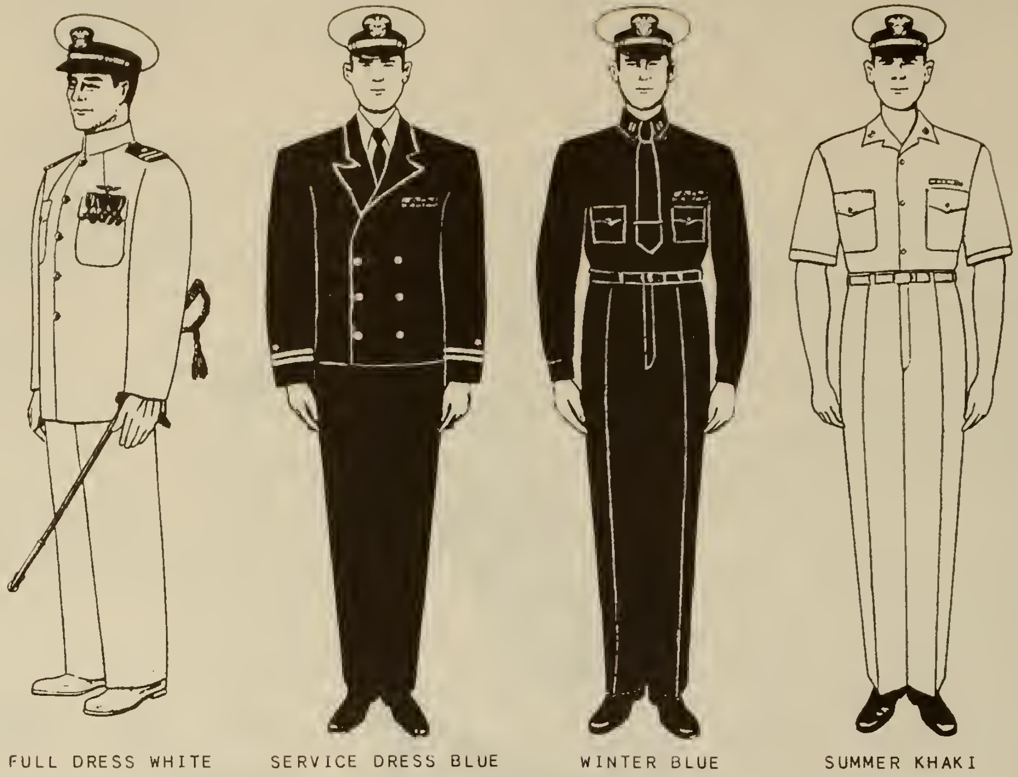
Medical Service*

Nurse

U.S. Navy Band (Musicians)

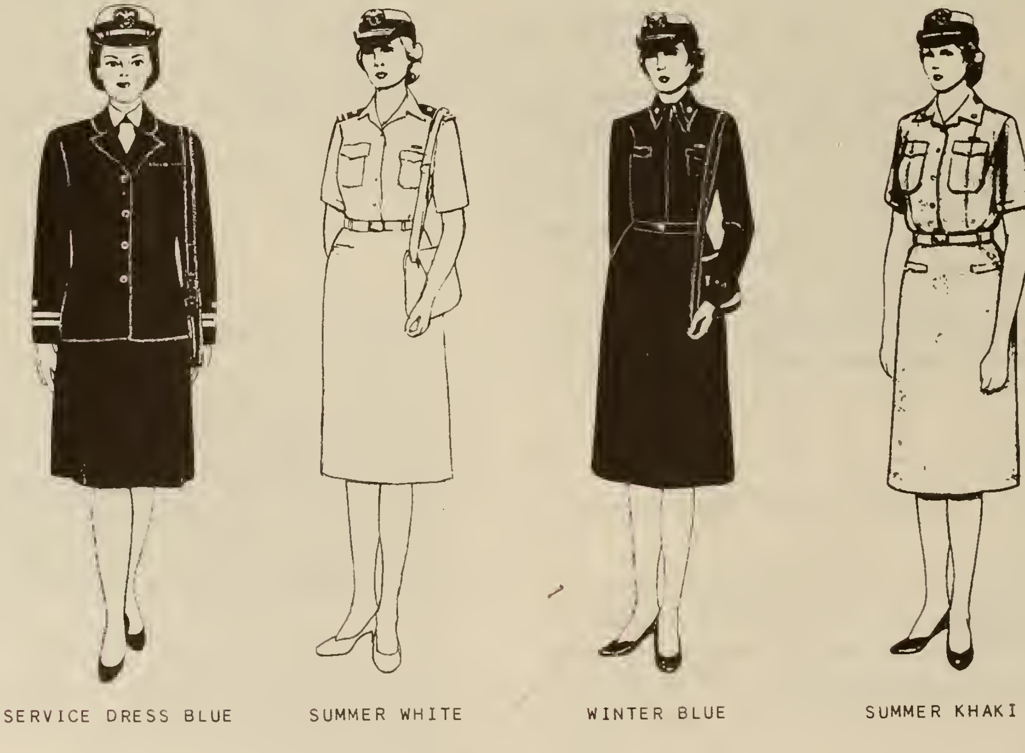
*The Medical Corps consists of physicians and surgeons. The Medical Service Corps is made up of pharmacists, medics, administrative officers, medical technologists, and so forth.

While commissioned officers of the staff corps have the rights and privileges of their grades, they may only assume command in their own corps. A medical officer, for example, can command



FULL DRESS WHITE SERVICE DRESS BLUE WINTER BLUE SUMMER KHAKI

Figure 9-2.—Basic men's uniforms.



SERVICE DRESS BLUE SUMMER WHITE WINTER BLUE SUMMER KHAKI

Figure 9-3.—Basic women's uniforms.

only a medical activity, such as a hospital or dispensary. Staff corps officers should not be confused with staff officers. Staff officers may be either line or staff corps officers assigned to the staffs of high-ranking officers.

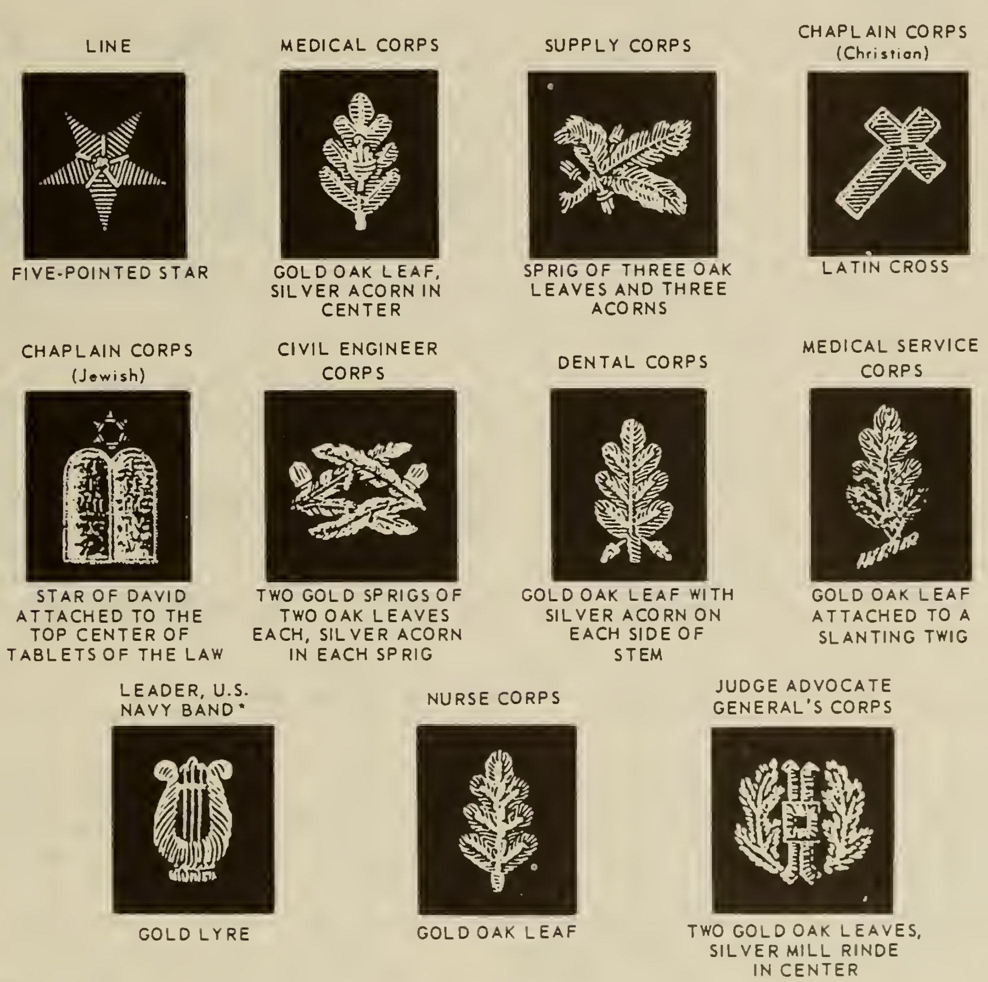
UNIFORMS AND CORPS DEVICES

Naval officers wear various uniforms for different occasions, similar to various civilian dress requirements. Figures 9-2 and 9-3 show some of the uniforms worn by Navy men and women. Naval aviators and chief petty officers (CPOs) serving as pilots or naval flight officers or in aviation support billets wear the aviation working green uniform (forest green). Other officers and chief petty officers attached to aviation commands may also wear it. *U.S. Navy Uniform Regulations* gives full details regarding uniforms and insignia.

Area coordinators prescribe the uniform of the day to be worn in their respective geographical areas. The senior officer present afloat (SOPA) prescribes the uniform of the day for shipboard commands outside the geographical limits of the area coordinator. The senior officer present (SOP) prescribes the uniform of the day for shore stations.

Officers wear certain devices with different uniforms to signify their grade. They wear gold sleeve stripes on blue coats; black sleeve stripes on forest green coats; and shoulder marks on white coats, white tropical shirts, and blue overcoats. They wear metal grade insignia on the shoulder straps of the blue raincoat and overcoat and on collars of khaki and blue flannel shirts.

Above the stripes (inboard of them on shoulder boards), line officers wear a five-pointed gold star; staff corps officers wear the appropriate corps device, as shown in figure 9-4. Women


LINE
FIVE-POINTED STAR
MEDICAL CORPS
GOLD OAK LEAF, SILVER ACORN IN CENTER
SUPPLY CORPS
SPRIG OF THREE OAK LEAVES AND THREE ACORNS
CHAPLAIN CORPS (Christian)
LATIN CROSS
CHAPLAIN CORPS (Jewish)
STAR OF DAVID ATTACHED TO THE TOP CENTER OF TABLETS OF THE LAW
CIVIL ENGINEER CORPS
TWO GOLD SPRIGS OF TWO OAK LEAVES EACH, SILVER ACORN IN EACH SPRIG
DENTAL CORPS
GOLD OAK LEAF WITH SILVER ACORN ON EACH SIDE OF STEM
MEDICAL SERVICE CORPS
GOLD OAK LEAF ATTACHED TO A SLANTING TWIG
LEADER, U.S. NAVY BAND*
GOLD LYRE
NURSE CORPS
GOLD OAK LEAF
JUDGE ADVOCATE GENERAL'S CORPS
TWO GOLD OAK LEAVES, SILVER MILL RINDE IN CENTER

* Also leader of U. S. Naval Academy Band and those commissioned in the field of music

Figure 9-4.—Commissioned officers' line and staff corps devices.

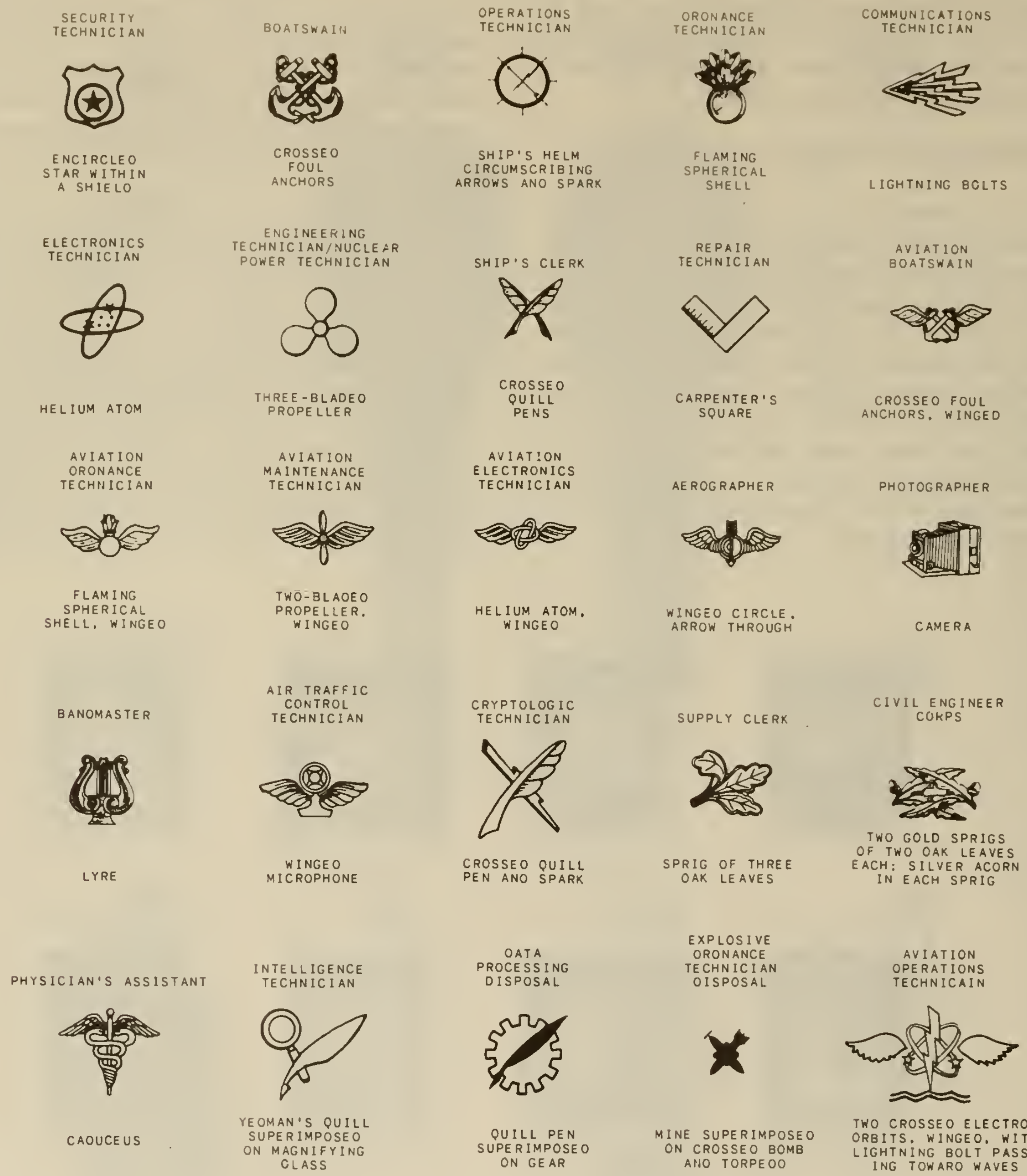

SECURITY TECHNICIAN
ENCIRCLED STAR WITHIN A SHIELD
BOATSWAIN
CROSSED FOUL ANCHORS
OPERATIONS TECHNICIAN
SHIP'S HELM CIRCUMSCRIBING ARROWS AND SPARK
ORDNANCE TECHNICIAN
FLAMING SPHERICAL SHELL
COMMUNICATIONS TECHNICIAN
LIGHTNING BOLTS
ELECTRONICS TECHNICIAN
HELIUM ATOM
ENGINEERING TECHNICIAN/NUCLEAR POWER TECHNICIAN
THREE-BLADED PROPELLER
SHIP'S CLERK
CROSSED QUILL PENS
REPAIR TECHNICIAN
CARPENTER'S SQUARE
AVIATION BOATSWAIN
CROSSED FOUL ANCHORS, WINGED
AVIATION ORDNANCE TECHNICIAN
FLAMING SPHERICAL SHELL, WINGED
AVIATION MAINTENANCE TECHNICIAN
TWO-BLADED PROPELLER, WINGED
AVIATION ELECTRONICS TECHNICIAN
HELIUM ATOM, WINGED
AEROGRAPHER
WINGED CIRCLE, ARROW THROUGH
PHOTOGRAPHER
CAMERA
BANDMASTER
LYRE
AIR TRAFFIC CONTROL TECHNICIAN
WINGED MICROPHONE
CRYPTOLOGIC TECHNICIAN
CROSSED QUILL PEN AND SPARK
SUPPLY CLERK
SPRIG OF THREE OAK LEAVES
CIVIL ENGINEER CORPS
TWO GOLD SPRIGS OF TWO OAK LEAVES EACH; SILVER ACORN IN EACH SPRIG
PHYSICIAN'S ASSISTANT
CADUCEUS
INTELLIGENCE TECHNICIAN
YEOMAN'S QUILL SUPERIMPOSED ON MAGNIFYING GLASS
DATA PROCESSING DISPOSAL
QUILL PEN SUPERIMPOSED ON GEAR
EXPLOSIVE ORDNANCE TECHNICIAN DISPOSAL
MINE SUPERIMPOSED ON CROSSED BOMB AND TORPEDO
AVIATION OPERATIONS TECHNICAIN
TWO CROSSED ELECTRON ORBITS, WINGED, WITH LIGHTNING BOLT PASSING TOWARD WAVES

Figure 9-5.—Warrant officers' specialty insignia.

officers wear cap and sleeve insignia identical to those of male officers.

The specialty devices for commissioned warrant officers appear in figure 9-5.

Figure 9-6 shows the gold stripes that indicate an officer's grade. Flag officers' sleeve markings consist of at least one 2-inch stripe. The addition of 1/2-inch stripes above the 2-inch band indicates relative seniority by grade—one stripe for rear admiral (UH), two for vice admiral, three for full admiral, and four for fleet admiral. As shown in the figure, the size and number of 1/2-inch and 1/4-inch stripes indicate the grades of other commissioned officers. All chief warrant officers wear one broken 1/2-inch stripe.

Officers wear grade-indicating devices on the collars of khaki and winter blue shirts. Line officers wear the device on both collar tips. Staff corps officers wear the grade device on the right collar tip and the corps device on the left.

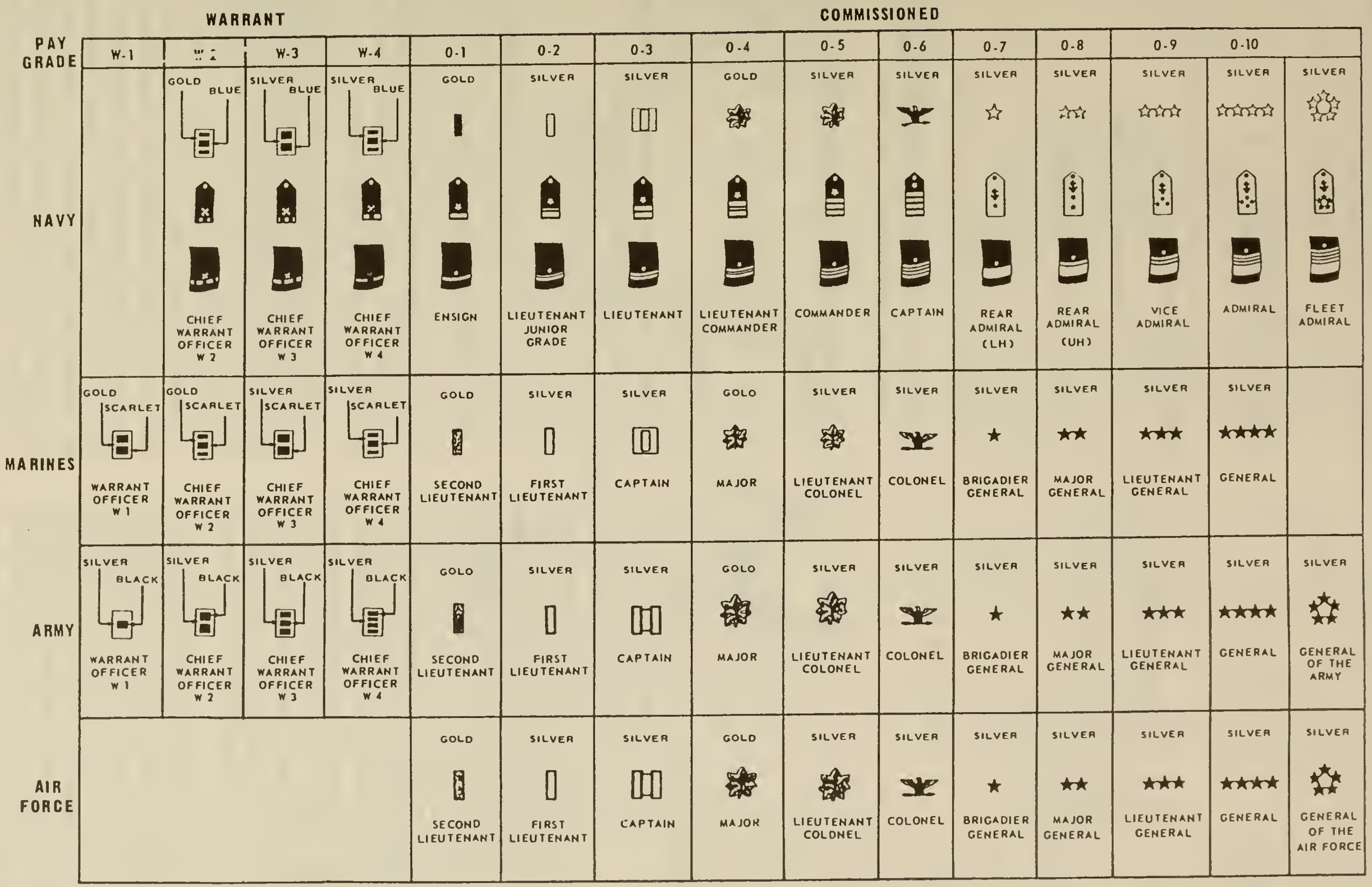

WARRANT
COMMISSIONED
PAY GRADE
W-1
W-2
W-3
W-4
0-1
0-2
0-3
0-4
0-5
0-6
0-7
0-8
0-9
0-10
NAVY
GOLD BLUE
SILVER BLUE
SILVER BLUE
GOLD
SILVER
SILVER
GOLD
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
CHIEF WARRANT OFFICER W 2
CHIEF WARRANT OFFICER W 3
CHIEF WARRANT OFFICER W 4
ENSIGN
LIEUTENANT JUNIOR GRADE
LIEUTENANT
LIEUTENANT COMMANDER
COMMANDER
CAPTAIN
REAR ADMIRAL (LH)
REAR ADMIRAL (UH)
VICE ADMIRAL
ADMIRAL
FLEET ADMIRAL
MARINES
GOLD SCARLET
GOLD SCARLET
SILVER SCARLET
SILVER SCARLET
GOLD
SILVER
SILVER
GOLD
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
WARRANT OFFICER W 1
CHIEF WARRANT OFFICER W 2
CHIEF WARRANT OFFICER W 3
CHIEF WARRANT OFFICER W 4
SECOND LIEUTENANT
FIRST LIEUTENANT
CAPTAIN
MAJOR
LIEUTENANT COLONEL
COLONEL
BRIGADIER GENERAL
MAJOR GENERAL
LIEUTENANT GENERAL
GENERAL
ARMY
SILVER BLACK
SILVER BLACK
SILVER BLACK
SILVER BLACK
GOLD
SILVER
SILVER
GOLD
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
WARRANT OFFICER W 1
CHIEF WARRANT OFFICER W 2
CHIEF WARRANT OFFICER W 3
CHIEF WARRANT OFFICER W 4
SECOND LIEUTENANT
FIRST LIEUTENANT
CAPTAIN
MAJOR
LIEUTENANT COLONEL
COLONEL
BRIGADIER GENERAL
MAJOR GENERAL
LIEUTENANT GENERAL
GENERAL
GENERAL OF THE ARMY
AIR FORCE
GOLD
SILVER
SILVER
GOLD
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
SILVER
SECOND LIEUTENANT
FIRST LIEUTENANT
CAPTAIN
MAJOR
LIEUTENANT COLONEL
COLONEL
BRIGADIER GENERAL
MAJOR GENERAL
LIEUTENANT GENERAL
GENERAL
GENERAL OF THE AIR FORCE

Figure 9-6.—Insignia of officers of the armed forces of the United States.

Naval officers wear the following grade devices; they are similar to the grade devices worn by Army, Air Force, and Marine officers:

Grade	Device
Fleet admiral	Five silver stars
Admiral	Four silver stars
Vice admiral	Three silver stars
Rear admiral (UH)	Two silver stars
Rear admiral (LH)	One silver star
Captain	Silver spread eagle
Commander	Silver oak leaf
Lieutenant commander	Gold oak leaf
Lieutenant	Two silver bars
Lieutenant (jg)	One silver bar
Ensign	One gold bar
Commissioned warrant officer	Dark blue bar with silver (W-4, W-3) or gold (W-2) breaks

The Navy authorizes officers to wear two types of caps: combination and garrison. The combination cap has a stiff visor and rigid-standing front. Officers wear it with a detachable blue, white, khaki, or aviation green (for aviation personnel) cap cover. The blue is prescribed only in extremely cold weather. The color of the cap cover and the uniform must match except for the white cover, which officers may wear with both blue and white uniforms. They have the option of wearing the garrison cap, which is either green or khaki, with a uniform of the same color. When authorized by proper authority, they may wear a command ball cap with the working uniform.

Combination caps worn by officers below the grade of commander have a plain, black visor. Captains' and commanders' visors are partly fretted by gold embroidery; flag officers' caps bear full visor embroidery. Cap devices consist of two crossed fouled anchors with a silver shield surmounted by a spread eagle. Chin straps are faced with gold lace.

Personnel wear the rank device on the garrison cap on the right side near the front and a miniature cap device on the left side.

AIGUILLETTES AND MOURNING BADGES

Officers wear aiguillettes when assigned to the following duties:

Personal aide to the President

Aide to the Vice President

Aide at the White House

Aide to the Secretary of Defense

Aide to the Secretary, Undersecretary, and Assistant Secretaries of the Navy

Aide to the Deputy or Assistant Secretaries of Defense

Aide to flag officers

Naval attache

Aide to top ranking representatives of foreign nations visiting the United States

Recruit company commander

Recruit company commander assistant

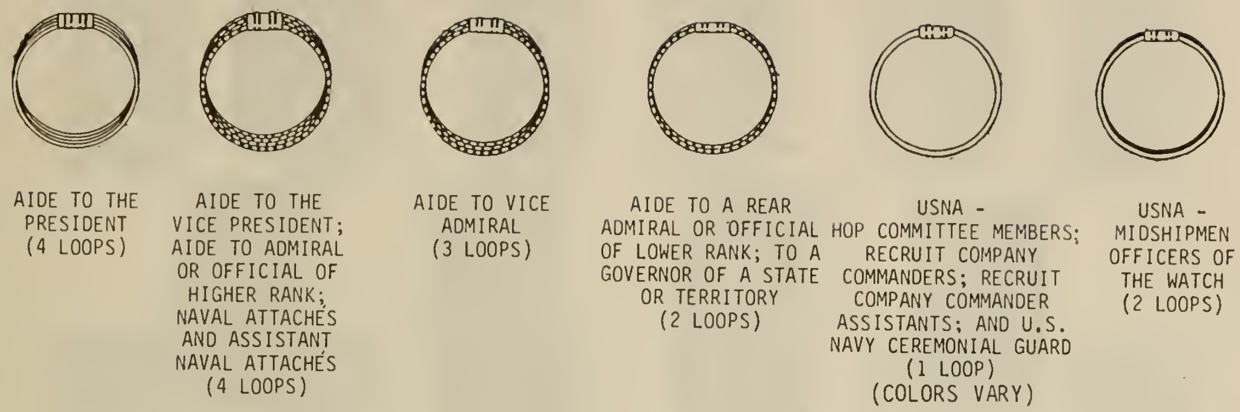
U.S. Navy ceremonial guard

Officers appointed as aides on the staff of a governor of a state or territory may wear aiguillettes on official occasions.

Aides to the President, to the Vice President, at the White House, and to foreign heads of state wear them on the right side; all others wear them on the left. Officers wear them on the outside of overcoats or reefers.

Service aiguillettes consist of loops of gold cord with a blue silk insertion. The one worn by an aide to the President has no insertion. The aiguillette cord fastens on the shoulder and then loops around the shoulder just under the armpit. The number of loops indicates the wearer's duty assignment or status (fig. 9-7).

SERVICE AIGUILLETTES


AIDE TO THE PRESIDENT (4 LOOPS)
AIDE TO THE VICE PRESIDENT; AIDE TO ADMIRAL OR OFFICIAL OF HIGHER RANK; NAVAL ATTACHÉS AND ASSISTANT NAVAL ATTACHÉS (4 LOOPS)
AIDE TO VICE ADMIRAL (3 LOOPS)
AIDE TO A REAR ADMIRAL OR OFFICIAL OF LOWER RANK; TO A GOVERNOR OF A STATE OR TERRITORY (2 LOOPS)
USNA - HOP COMMITTEE MEMBERS; RECRUIT COMPANY COMMANDERS; RECRUIT COMPANY COMMANDER ASSISTANTS; AND U.S. NAVY CEREMONIAL GUARD (1 LOOP) (COLORS VARY)
USNA - MIDSHIPMEN OFFICERS OF THE WATCH (2 LOOPS)

MANNER OF WEARING

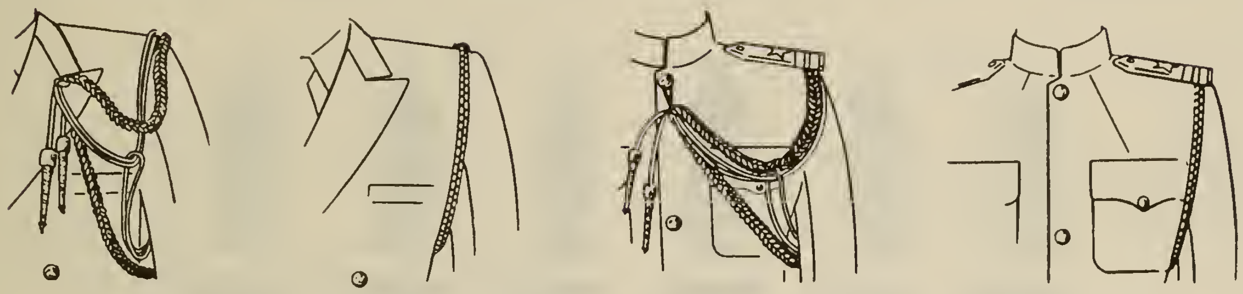


Figure 9-7.—The number of loops in the aiguillettes indicates the status of the wearer.

Dress aiguillettes consist of two single plaits of aiguillette cord with two loops. At the end of the plaits are approximately 3 inches of plain cord to which two gilt metal pencils are secured. The metal pencils are approximately 3 1/2 inches long and mounted with two silver anchors. Aides wear them on various uniforms for special or ceremonial occasions or when prescribed.

U.S. Naval Academy midshipmen wear aiguillettes as prescribed by the Commandant of Midshipmen; they pin them on the shoulder at the arm seam.

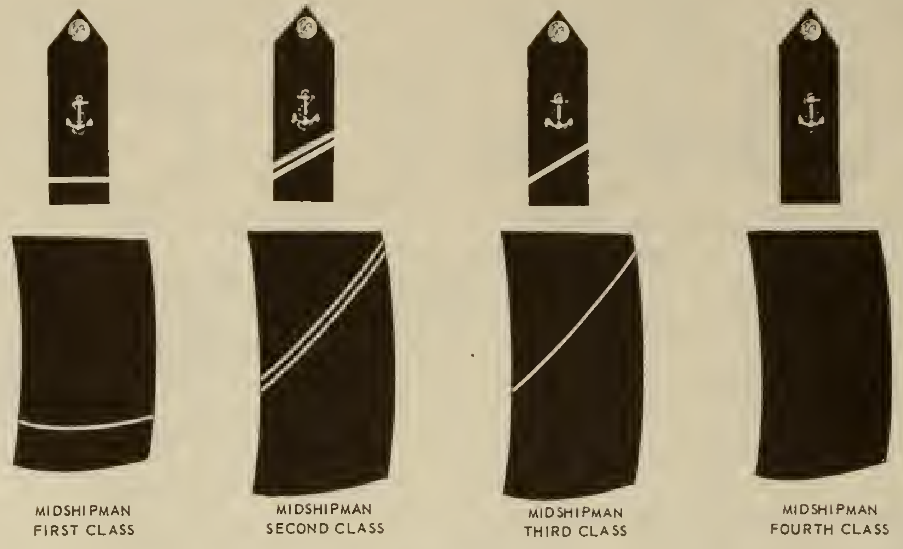
Mourning badges, made of black crepe, are 3 inches wide; officers wear them on the left sleeve of the outer coat, halfway between the shoulder and elbow. Officers wear mourning badges when serving as honorary pallbearers at military funerals, when attending military funerals in an official capacity, and at other prescribed times. Those attending civilian funerals may wear mourning badges if desired.

MIDSHIPMEN'S AND OFFICER CANDIDATE'S UNIFORM MARKINGS

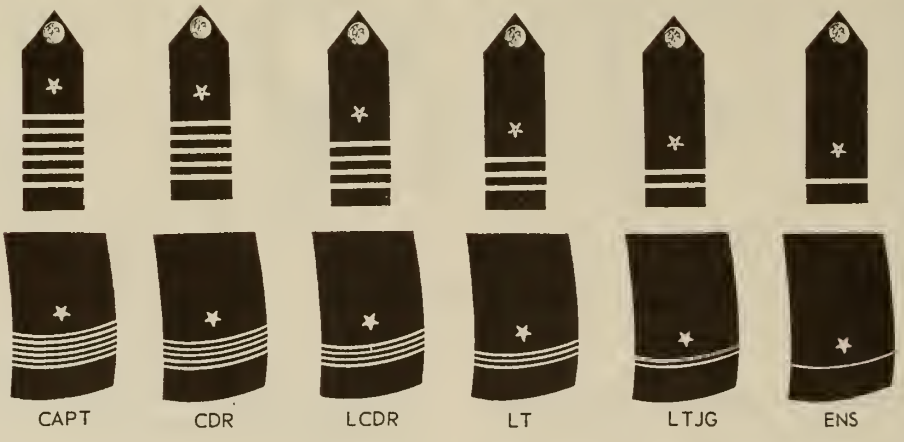
Naval Academy midshipmen are classified as officers of the line but are officers only in a qualified sense. They rank just below chief warrant officers. They wear the following uniforms: service dress, full dress, dinner dress, working, infantry, and tropical. Their service dress and working uniforms are similar to those of commissioned officers.

Midshipmen wear a 3/8-inch gold chin strap and a gold fouled anchor device on the combination cap. They wear a miniature cap device on the left side of the garrison cap.

Midshipmen wear a pin-on gold anchor on each lapel of the blue service blouse. Outstanding midshipmen of each class wear a pin-on gold star above each collar anchor on the full dress and


MIDSHIPMAN FIRST CLASS
MIDSHIPMAN SECOND CLASS
MIDSHIPMAN THIRD CLASS
MIDSHIPMAN FOURTH CLASS

A CLASS STRIPES


CAPT
CDR
LCDR
LT
LTJG
ENS

B RANK STRIPES

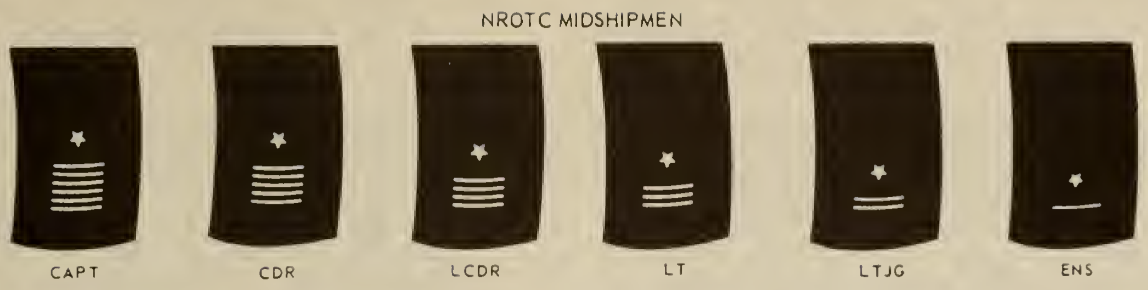
Figure 9-8.—USNA midshipmen class/rank stripes and shoulder marks.

service dress blue uniform. Midshipmen wear class insignia (fig. 9-8, view A) as follows:

- First class wear one horizontal gold stripe around each sleeve.
- Second class wear two diagonal gold stripes on the left sleeve only. The stripes extend between the elbow and cuff with the higher end along the rear seam and the lower end along the front.
- Third class wear one diagonal gold stripe on the left sleeve.
- Fourth class wear no sleeve stripes.

Midshipmen wear gold fouled anchors, an eagle, and bar insignia on collar tips of blue drill shirts, khaki shirts, and green utilities as follows:

- Midshipmen first class of other than officer rank wear the eagle insignia on both collars.
- Midshipmen second class wear the anchor insignia on both collars.
- Midshipmen third class wear the anchor insignia on the right collar only.



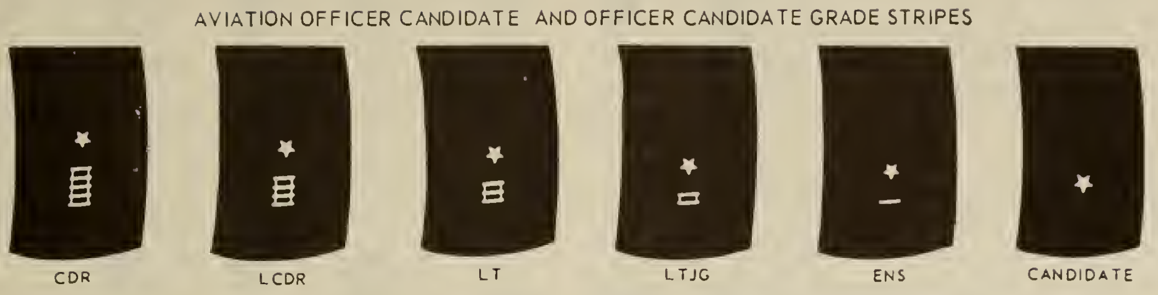

AVIATION OFFICER CANDIDATE AND OFFICER CANDIDATE GRADE STRIPES
CDR
LCDR
LT
LTJG
ENS
CANDIDATE

Figure 9-9.—Grade stripes for NROTC midshipmen and officer candidates.

- Midshipmen fourth class wear no insignia on the collar.
- Midshipmen officers wear from one to six bars representing the ranks of midshipman ensign through midshipman captain.

Instead of sleeve stripes denoting class, midshipmen officers of the first class wear gold stripes to denote grade, as shown in figure 9-8, view B.

The uniform of NROTC midshipmen is similar to the uniforms of officers and USNA midshipmen. Figure 9-9 shows the variation in grade stripes.

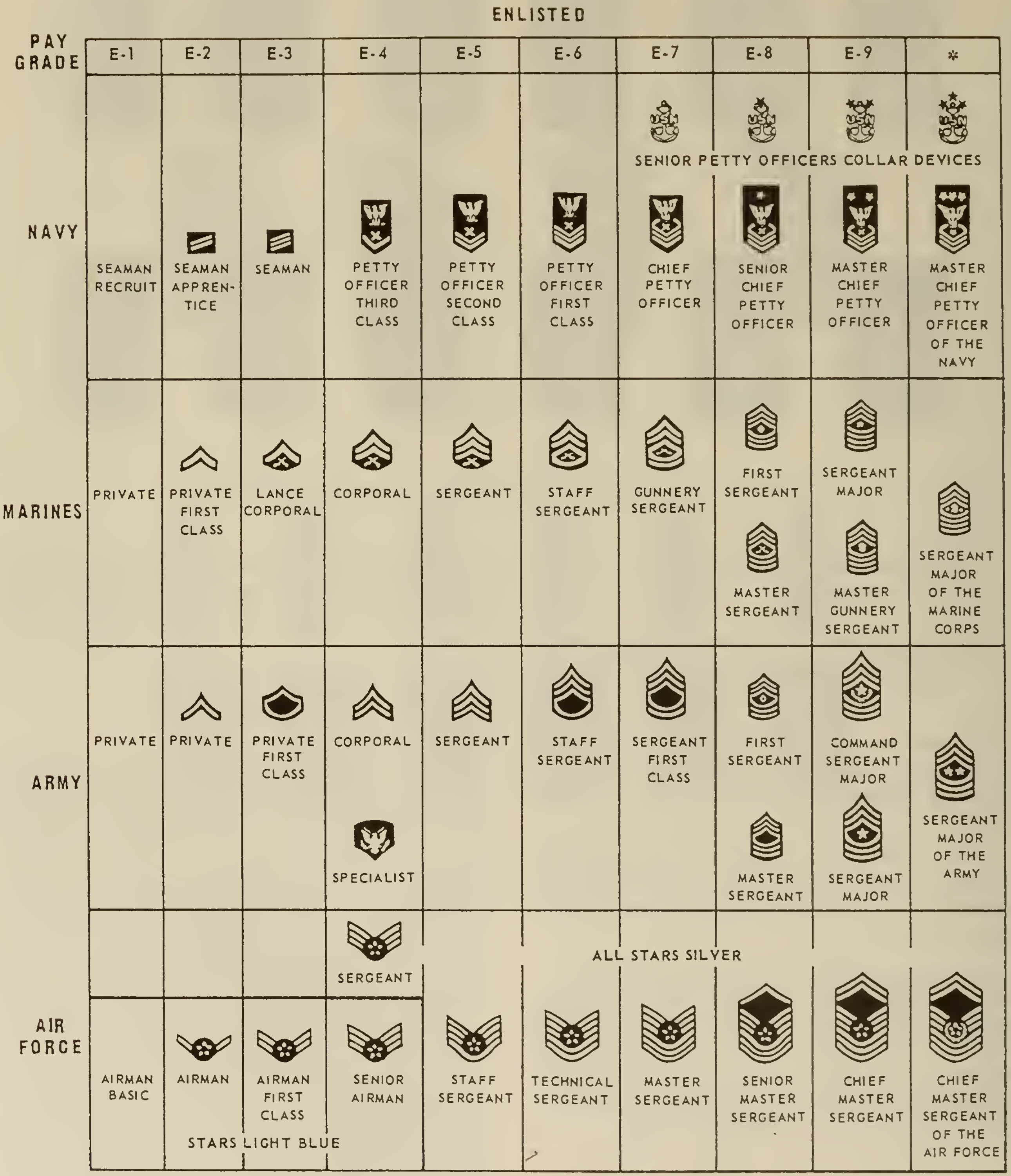
Officer candidates wear uniforms similar to officer service dress, working blue, and khaki uniforms. Midshipmen first and second class wear corps or line insignia on service dress uniforms and gold anchor devices on each collar tip of the blue and khaki shirts. Midshipmen third and fourth class wear no insignia.

ENLISTED PERSONNEL

In the enlisted ranks, a field of work or an occupation is called a rating; levels within the rating are rates. In the case of a Boatswain's Mate second class (BM2), for example, Boatswain's Mate is the rating and second class is the rate.

RATES AND RATINGS

Newcomers without previous naval experience normally enter the service as recruits in paygrade E-1, the basic paygrade in the armed forces' rating structure. From the recruit level they begin to absorb training in a broad occupational group and to advance in rate or rating when qualified. After completing recruit training and qualifying for advancement to the apprentice level (paygrade E-2), they must again qualify for the next higher level (paygrade E-3). After advancing to seaman (or fireman, airman, constructionman, hospitalman, or dentalman), they then work to qualify for the lowest petty officer rate of a particular rating, depending on their ability and inclinations. At this level E-3s begin the occupational career they will follow for the remainder of their naval service. Within most ratings, personnel can choose specialties. For example, the Gunner's Mate rating includes Gunner's Mate (Guns) and Gunner's Mate (Missiles) specialties. Normally, once advanced to that rating, the person specializes only in that field.



ENLISTED

PAY GRADE	E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9	*
NAVY	SEAMAN RECRUIT	SEAMAN APPRENTICE	SEAMAN	PETTY OFFICER THIRD CLASS	PETTY OFFICER SECOND CLASS	PETTY OFFICER FIRST CLASS	SENIOR PETTY OFFICERS COLLAR DEVICES CHIEF PETTY OFFICER	SENIOR CHIEF PETTY OFFICER	MASTER CHIEF PETTY OFFICER	MASTER CHIEF PETTY OFFICER OF THE NAVY
MARINES	PRIVATE	PRIVATE FIRST CLASS	LANCE CORPORAL	CORPORAL	SERGEANT	STAFF SERGEANT	GUNNERY SERGEANT	FIRST SERGEANT MASTER SERGEANT	SERGEANT MAJOR MASTER GUNNERY SERGEANT	SERGEANT MAJOR OF THE MARINE CORPS
ARMY	PRIVATE	PRIVATE	PRIVATE FIRST CLASS	CORPORAL SPECIALIST	SERGEANT	STAFF SERGEANT	SERGEANT FIRST CLASS	FIRST SERGEANT MASTER SERGEANT	COMMAND SERGEANT MAJOR SERGEANT MAJOR	SERGEANT MAJOR OF THE ARMY
AIR FORCE	AIRMAN BASIC	AIRMAN	AIRMAN FIRST CLASS	SERGEANT SENIOR AIRMAN	STAFF SERGEANT	TECHNICAL SERGEANT	MASTER SERGEANT	SENIOR MASTER SERGEANT	CHIEF MASTER SERGEANT	CHIEF MASTER SERGEANT OF THE AIR FORCE

ALL STARS SILVER

STARS LIGHT BLUE

* AUTHORIZED ONLY WHILE SERVING AS THE SENIOR ENLISTED MEMBER OF ANY BRANCH OF MILITARY SERVICE.

Figure 9-10.—Insignia of U.S. armed forces enlisted personnel.

The following shows the normal path of advancement by paygrades:

General Title	Paygrade
Seaman recruit	E-1
Fireman recruit	
Airman recruit	
Constructionman recruit	
Hospitalman recruit	
Dentalman recruit	
Seaman apprentice	E-2
Fireman apprentice	
Airman apprentice	
Constructionman apprentice	
Hospitalman apprentice	
Dentalman apprentice	
Seaman	E-3
Fireman	
Airman	
Constructionman	
Hospitalman	
Dentalman	
Petty officer third class	E-4
Petty officer second class	E-5
Petty officer first class	E-6
Chief petty officer	E-7
Senior chief petty officer	E-8
Master chief petty officer	E-9

Figure 9-10 shows a comparison by paygrade insignia of enlisted personnel of the Navy, Marines, Army, and Air Force.

Let us trace the advancement of a typical enlisted naval careerist, Tom Gaskins, who specializes in the occupational field of Gunner's Mate (Guns) (GMG). Gaskins first enlists as a seaman recruit (SR). After receiving basic training at a recruit training center, he expresses interest in deck seamanship. Upon completion of his training, he is transferred to sea duty. Aboard ship he receives general training in seamanship and, in time, qualifies for advancement to seaman apprentice (SA), then to seaman (SN).

Meantime, having demonstrated an interest in the rating of Gunner's Mate (Guns) (GMG), Gaskins receives an assignment to gunnery maintenance duties in the weapons department. Having shown himself proficient in that field of work, Gaskins receives authorization from his commanding officer to participate in the Navywide advancement examination for GMG3. Gaskins can participate in this examination only after he has met certain requirements, such as length of time in service and paygrade. If successful, he then has recurring opportunities to compete for successive advancement to GMG2, GMG1, and GMC. Gaskins retains the specialty rating (Guns) until he advances to chief. Thereafter, he becomes eligible to compete for advancement to senior and master chief petty officer, the latter being the highest enlisted rate. He even has a possibility of being selected as the master chief petty officer of the Navy, a billet held by only one Navy enlisted person at a time.

Subject to standard instructions, personnel in the lower paygrades may freely change laterally from one group to another before receiving intensive training in one particular field. This allows time for each person to find his or her choice of work in the Navy. However, once a person has advanced to the petty officer level, lateral changes are permitted less frequently.

UNIFORMS

The jumper-style uniform, worn since the turn of the century, is still the prescribed

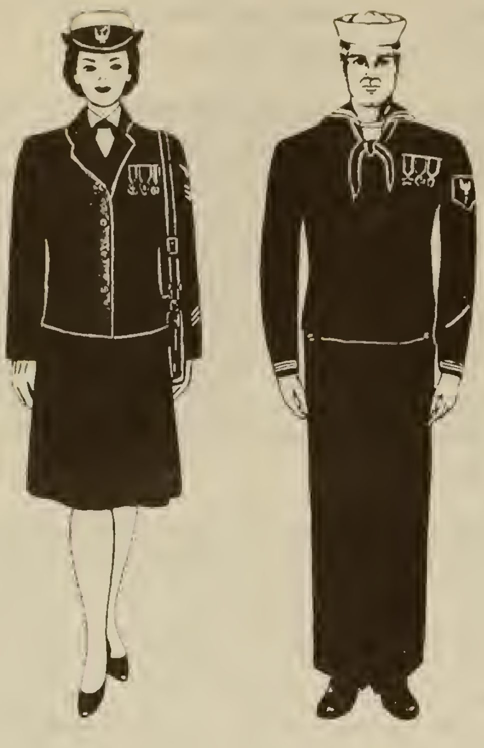


Figure 9-11.—Typical uniforms for enlisted personnel below CPO.

uniform for male personnel E-1 through E-6 (fig. 9-11).

Uniforms for chief petty officers, like officers, are of the distinctive and traditional double-breasted coat and tie style shown in figure 9-12. The differences between officers' and chief petty officers' uniforms are in identifying insignia.

Chief petty officers wear a visor cap similar to the junior officer type. The chin strap is black leather, and the insignia is a gold fouled anchor on which are superimposed the silver letters *USN*. The number of stars atop the anchor reflects the rate of a senior or master chief petty officer: one star for senior and two for master (with a third star for the master chief petty officer of the Navy).

Petty officers wear, midway between shoulder and elbow of the left sleeve, a rating badge. The badge consists of a perched eagle, the specialty mark of their rating (see figs. 9-13 and 9-14), and chevrons, indicating the rate. Senior and master chief petty officers wear stars above the eagle of the rating badge to indicate their rate, as shown in figure 9-10. In addition to the rating badge, CPOs also wear miniature fouled anchors on each collar tip of the khaki, working blue, and tropical white shirt.

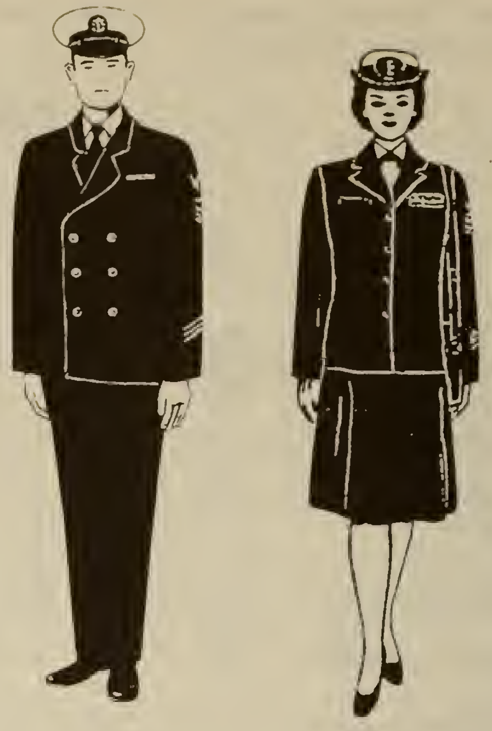


Figure 9-12.—Uniforms for CPOs.

The color of a rating badge varies according to the uniform on which it is worn. Enlisted personnel generally wear scarlet chevrons on blue uniforms and blue on all others.

The service stripes (hashmarks) on the left sleeve below the rating badge identify the number of years an enlisted person has served in the armed forces. CPOs wear 7-inch-long diagonal service stripes; E-6 and below wear 5-inch-long diagonal stripes. Each stripe represents 4 years of service in the Navy, Marine Corps, Coast Guard, Army, Air Force, or Naval Reserve. All enlisted personnel below CPO wear red hashmarks on blue uniforms and blue on others. Personnel who have completed 12 years of active service (broken or unbroken) in the Navy and Naval Reserve with good conduct wear gold chevrons and hashmarks with the blue and white uniforms.

Personnel below paygrade E-4 wear 3-inch-long rectangular group-rate marks on the left sleeve in place of the PO rating badge (fig. 9-13). The color of the stripes, alone or in combination with a specialty or striker's mark, indicates the

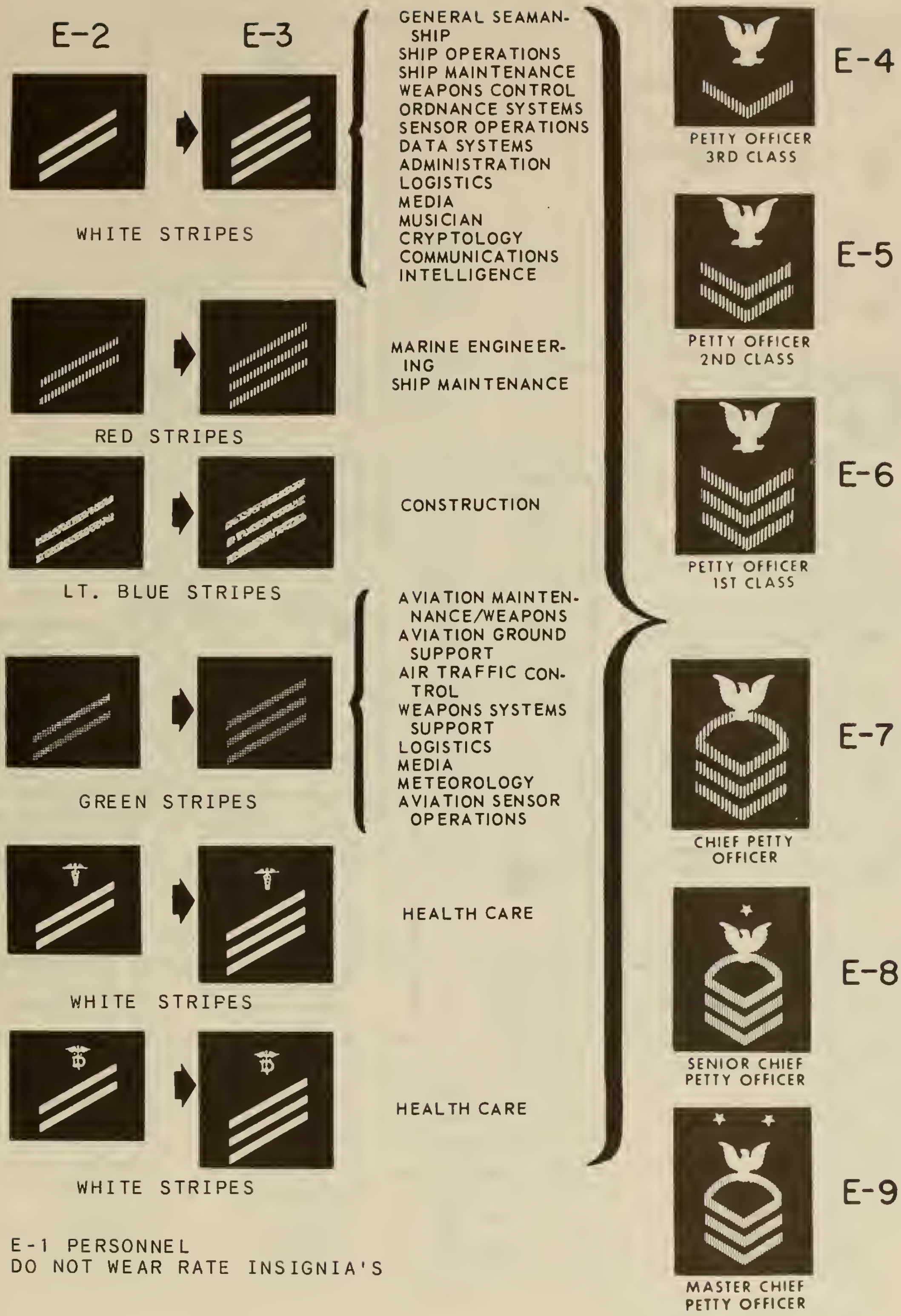

E-2
E-3
WHITE STRIPES
GENERAL SEAMANSHIP
SHIP OPERATIONS
SHIP MAINTENANCE
WEAPONS CONTROL
ORDNANCE SYSTEMS
SENSOR OPERATIONS
DATA SYSTEMS
ADMINISTRATION
LOGISTICS
MEDIA
MUSICIAN
CRYPTOLOGY
COMMUNICATIONS
INTELLIGENCE
RED STRIPES
MARINE ENGINEERING
SHIP MAINTENANCE
LT. BLUE STRIPES
CONSTRUCTION
GREEN STRIPES
AVIATION MAINTENANCE/WEAPONS
AVIATION GROUND SUPPORT
AIR TRAFFIC CONTROL
WEAPONS SYSTEMS SUPPORT
LOGISTICS
MEDIA
METEOROLOGY
AVIATION SENSOR OPERATIONS
WHITE STRIPES
HEALTH CARE
WHITE STRIPES
HEALTH CARE
E-1 PERSONNEL
DO NOT WEAR RATE INSIGNIA'S
E-4
PETTY OFFICER 3RD CLASS
E-5
PETTY OFFICER 2ND CLASS
E-6
PETTY OFFICER 1ST CLASS
E-7
CHIEF PETTY OFFICER
E-8
SENIOR CHIEF PETTY OFFICER
E-9
MASTER CHIEF PETTY OFFICER

Figure 9-13.—Enlisted rate insignia.

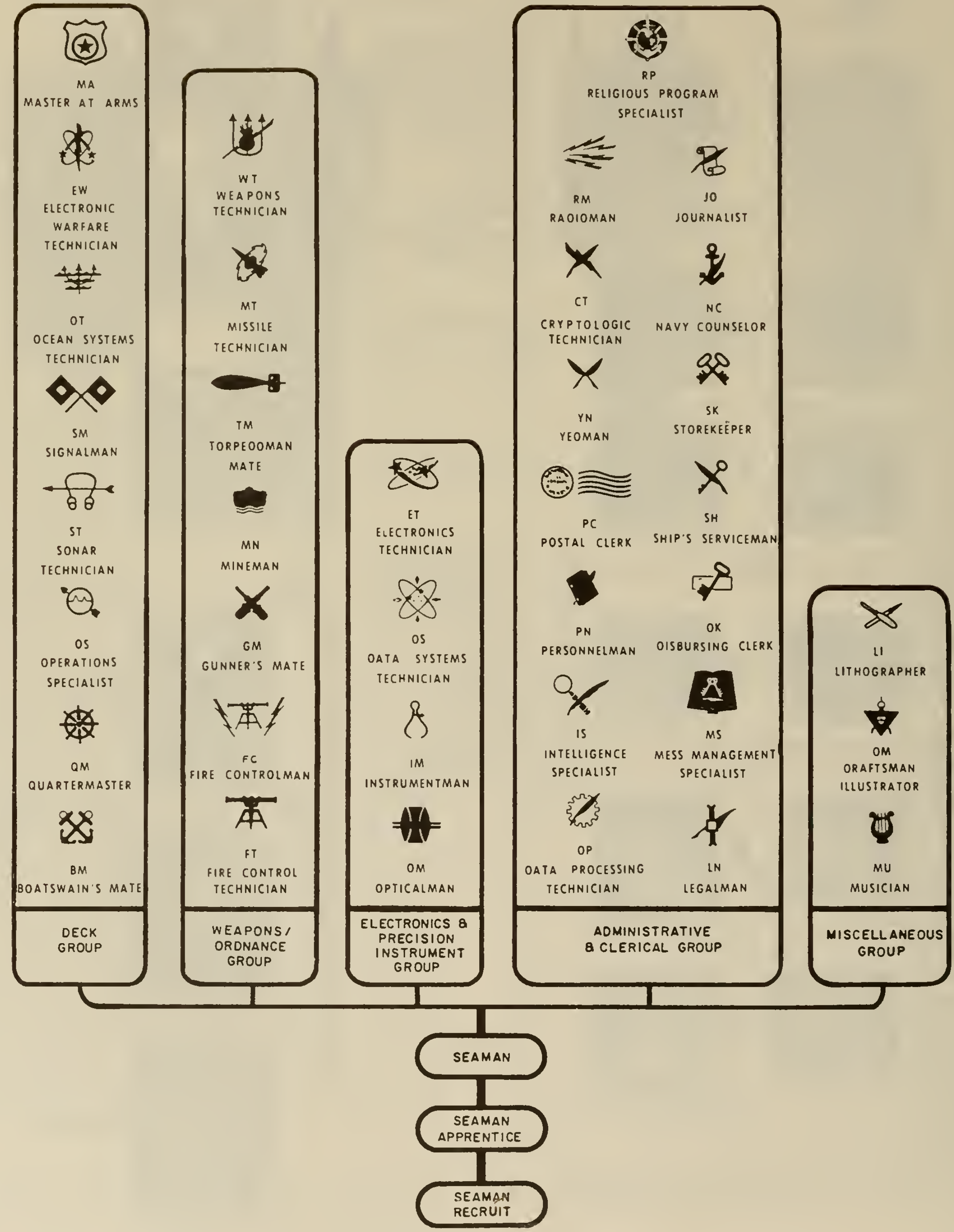

MA
MASTER AT ARMS
EW
ELECTRONIC WARFARE TECHNICIAN
OT
OCEAN SYSTEMS TECHNICIAN
SM
SIGNALMAN
ST
SONAR TECHNICIAN
OS
OPERATIONS SPECIALIST
QM
QUARTERMASTER
BM
BOATSWAIN'S MATE
DECK GROUP
WT
WEAPONS TECHNICIAN
MT
MISSILE TECHNICIAN
TM
TORPEDOMAN MATE
MN
MINEMAN
GM
GUNNER'S MATE
FC
FIRE CONTROLMAN
FT
FIRE CONTROL TECHNICIAN
WEAPONS/ ORDNANCE GROUP
ET
ELECTRONICS TECHNICIAN
DS
DATA SYSTEMS TECHNICIAN
IM
INSTRUMENTMAN
OM
OPTICALMAN
ELECTRONICS & PRECISION INSTRUMENT GROUP
RP
RELIGIOUS PROGRAM SPECIALIST
RM
RADIOMAN
JO
JOURNALIST
CT
CRYPTOLOGIC TECHNICIAN
NC
NAVY COUNSELOR
YN
YEOMAN
SK
STOREKEEPER
PC
POSTAL CLERK
SH
SHIP'S SERVICEMAN
PN
PERSONNELMAN
DK
DISBURSING CLERK
IS
INTELLIGENCE SPECIALIST
MS
MESS MANAGEMENT SPECIALIST
DP
DATA PROCESSING TECHNICIAN
LN
LEGALMAN
ADMINISTRATIVE & CLERICAL GROUP
LI
LITHOGRAPHER
DM
DRAFTSMAN ILLUSTRATOR
MU
MUSICIAN
MISCELLANEOUS GROUP
SEAMAN
SEAMAN APPRENTICE
SEAMAN RECRUIT

Figure 9-14.—Navy enlisted rating insignia.

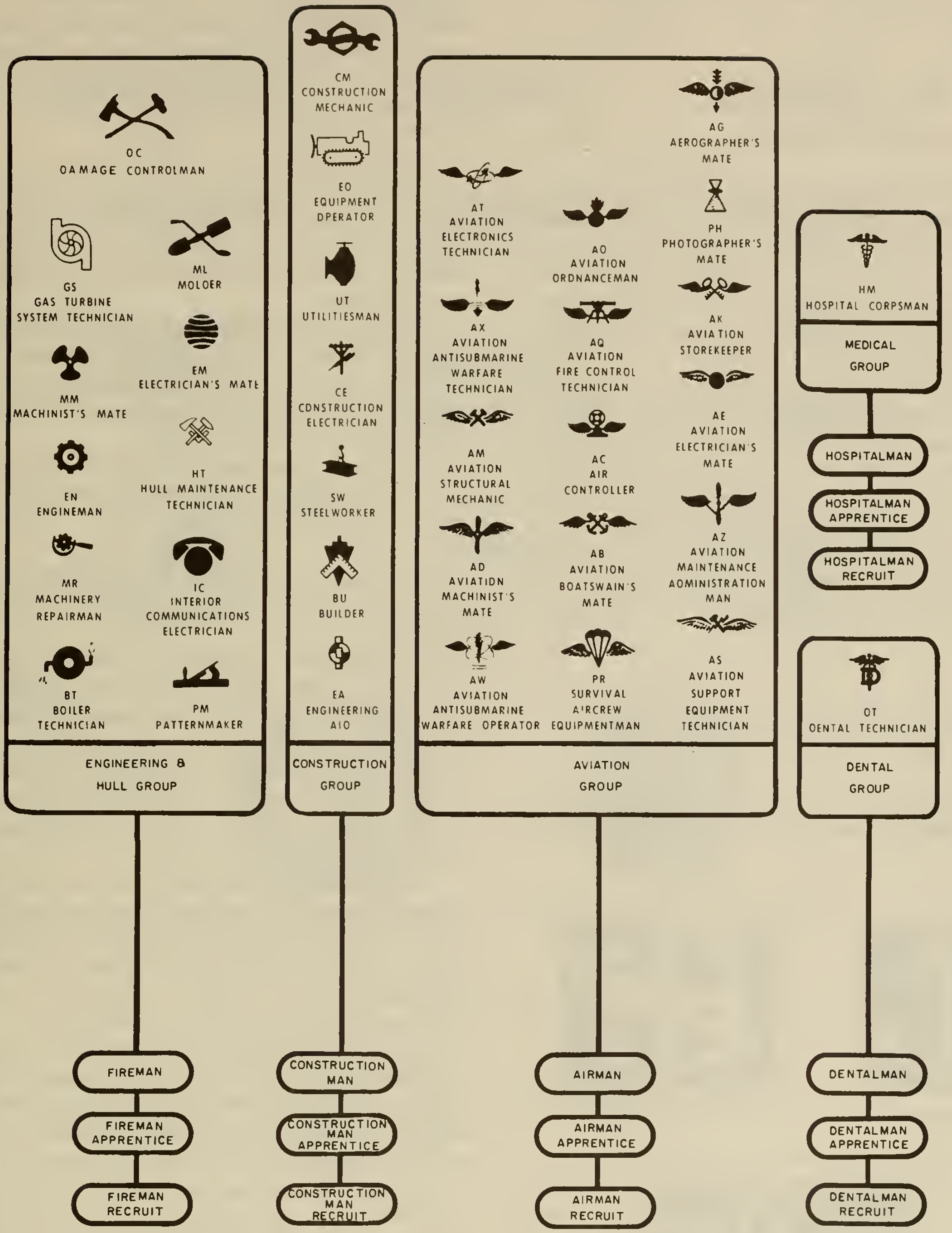

DC
DAMAGE CONTROLMAN
GS
GAS TURBINE SYSTEM TECHNICIAN
ML
MOLDER
MM
MACHINIST'S MATE
EM
ELECTRICIAN'S MATE
EN
ENGINEMAN
HT
HULL MAINTENANCE TECHNICIAN
MR
MACHINERY REPAIRMAN
IC
INTERIOR COMMUNICATIONS ELECTRICIAN
BT
BOILER TECHNICIAN
PM
PATTERNMAKER
ENGINEERING & HULL GROUP
FIREMAN
FIREMAN APPRENTICE
FIREMAN RECRUIT
CM
CONSTRUCTION MECHANIC
EO
EQUIPMENT OPERATOR
UT
UTILITIESMAN
CE
CONSTRUCTION ELECTRICIAN
SW
STEELWORKER
BU
BUILDER
EA
ENGINEERING AID
CONSTRUCTION GROUP
CONSTRUCTION MAN
CONSTRUCTION MAN APPRENTICE
CONSTRUCTION MAN RECRUIT
AG
AEROGRAPHER'S MATE
AT
AVIATION ELECTRONICS TECHNICIAN
AO
AVIATION ORDNANCEMAN
PH
PHOTOGRAPHER'S MATE
AX
AVIATION ANTISUBMARINE WARFARE TECHNICIAN
AQ
AVIATION FIRE CONTROL TECHNICIAN
AK
AVIATION STOREKEEPER
AE
AVIATION ELECTRICIAN'S MATE
AM
AVIATION STRUCTURAL MECHANIC
AC
AIR CONTROLLER
AZ
AVIATION MAINTENANCE ADMINISTRATION MAN
AD
AVIATION MACHINIST'S MATE
AB
AVIATION BOATSWAIN'S MATE
AS
AVIATION SUPPORT EQUIPMENT TECHNICIAN
AW
AVIATION ANTISUBMARINE WARFARE OPERATOR
PR
SURVIVAL AIRCREW EQUIPMENTMAN
AVIATION GROUP
AIRMAN
AIRMAN APPRENTICE
AIRMAN RECRUIT
HM
HOSPITAL CORPSMAN
MEDICAL GROUP
HOSPITALMAN
HOSPITALMAN APPRENTICE
HOSPITALMAN RECRUIT
DT
DENTAL TECHNICIAN
DENTAL GROUP
DENTALMAN
DENTALMAN APPRENTICE
DENTALMAN RECRUIT

Figure 9-14.—Navy enlisted rating insignia—Continued.

general occupational field to which a nonrated person belongs, as follows:

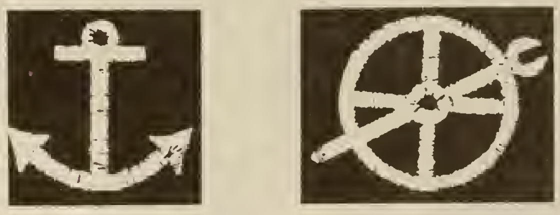
Seaman	White stripes on blue uniforms and navy blue stripes on white uniforms
Hospitalman	
Dentalman	
Fireman	Red
Airman	Emerald green
Constructionman	Light blue

Graduates of apprenticeship training schools wear the appropriate device indicating the broad occupational field they are entering. As shown in figure 9-15, they wear the airman insignia for aviation ratings; fireman, for engineering ratings; and seaman, for deck, weapons, and other related fields.

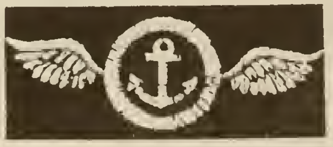
After demonstrating they have met the requirements to enter into a rating, either through formal schooling or on-the-job training, graduates may receive authorization from their commanding officers to wear the rating insignia specialty mark or designated striker's mark. This device is the same specialty mark petty officers wear on their rating badge, shown earlier in figure 9-14. The striker's mark replaces the apprenticeship device.

BREAST INSIGNIA AND IDENTIFICATION BADGES

The breast insignia indicates special qualifications or designations earned. We describe some of these insignia (fig. 9-16) in the following paragraphs.



SEAMAN FIREMAN



AIRMAN

Figure 9-15.—Apprenticeship insignia.

Persons below flag rank who have, or had, command of commissioned ships or aviation squadrons at sea wear the *Command at Sea* insignia. Officers currently in command wear the insignia on the right breast. Those not presently in command, but who have held command, wear it on the left breast below any ribbons, medals, or other insignia.

Officers below flag rank who have, or had, command ashore or served as a project manager wear the *Command Ashore/Project Manager* insignia. They wear this insignia in the same manner as that prescribed for the Command at Sea insignia.

Personnel currently serving, or having previously served, as an officer in charge of small craft wear the *Small Craft* insignia. They wear this insignia in the same manner as that prescribed for the Command at Sea insignia.

Personnel wear the insignia described in the following paragraphs on the left breast above any ribbons, medals, or insignia:

Personnel who have qualified in all phases of surface warfare wear the *Surface Warfare* insignia.

Personnel who have qualified to serve in submarines wear the *Submarine* insignia. In addition to the basic insignia, personnel serving as submarine medical, engineering, and supply officers wear another submarine insignia that identifies their specialty. Those who successfully take part in combat patrols also wear an additional submarine insignia.

Personnel qualified to serve in flight wear different *Aviation* insignia that indicate their specialty. Aviators (pilots), flight officers, flight surgeons, flight nurses, aircrewman, and combat aircrewmen each wear a different Aviation insignia that identifies their specialty.

Personnel qualified in underwater and beach reconnaissance, demolition, and special warfare tactics wear *Special Warfare* insignia. They are usually associated with underwater demolition or Sea-Air-Land (SEAL) team detachments.

Personnel qualified in the identification and safe disposal of ordnance wear *Explosive Ordnance Disposal* insignia. Those who wear this insignia have the ability to identify and dispose of the many different types of ordnance produced by the United States, our allies, and our enemies.

Personnel who successfully complete a patrol on a fleet ballistic missile submarine (SSBN) wear

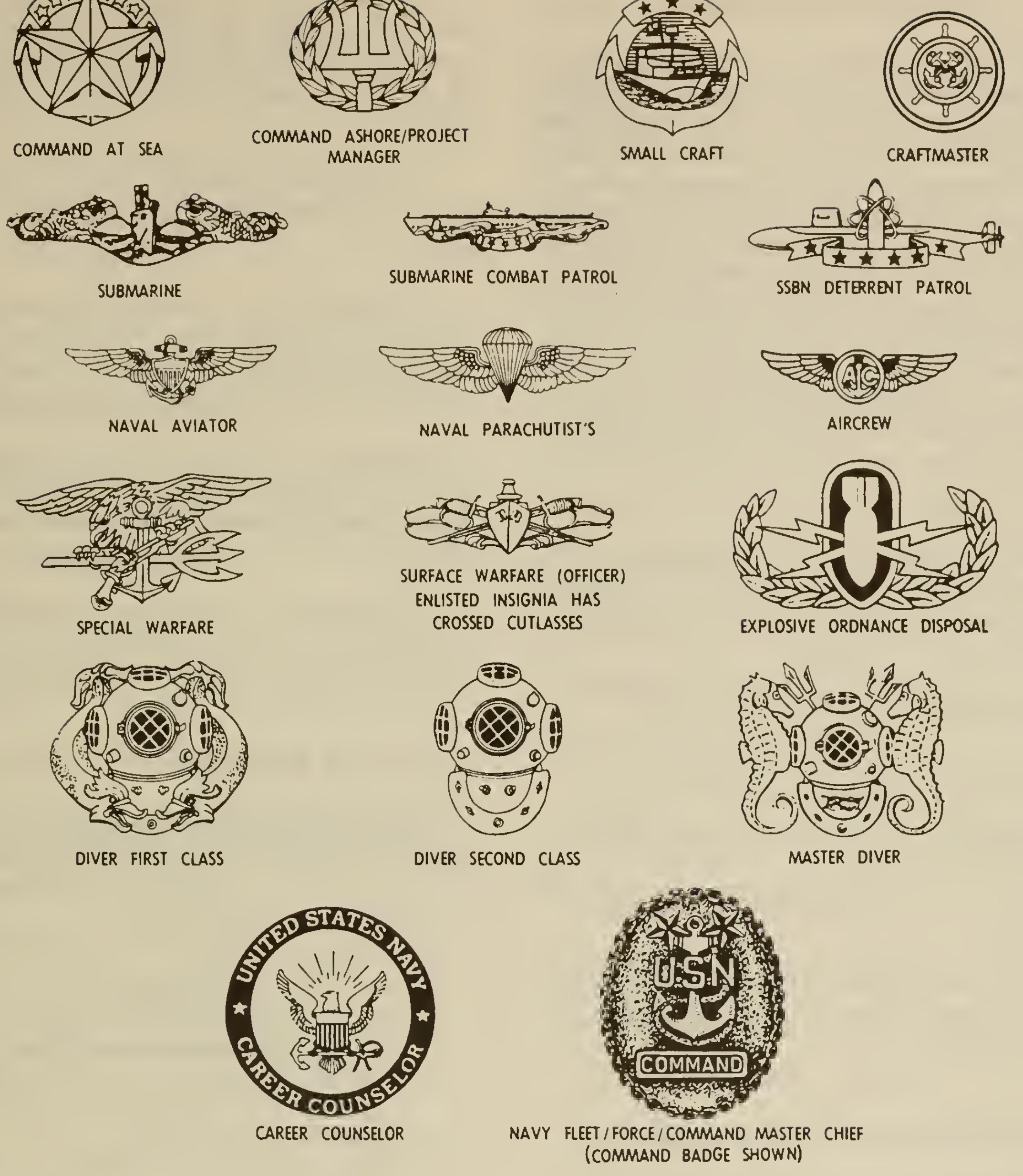

COMMAND AT SEA
COMMAND ASHORE/PROJECT MANAGER
SMALL CRAFT
CRAFTMASTER
SUBMARINE
SUBMARINE COMBAT PATROL
SSBN DETERRENT PATROL
NAVAL AVIATOR
NAVAL PARACHUTIST'S
AIRCREW
SPECIAL WARFARE
SURFACE WARFARE (OFFICER) ENLISTED INSIGNIA HAS CROSSED CUTLASSES
EXPLOSIVE ORDNANCE DISPOSAL
DIVER FIRST CLASS
DIVER SECOND CLASS
MASTER DIVER
UNITED STATES NAVY
CAREER COUNSELOR
USN
COMMAND
CAREER COUNSELOR
NAVY FLEET/FORCE/COMMAND MASTER CHIEF (COMMAND BADGE SHOWN)

Figure 9-16.—Breast insignia.

SSBN Deterrent Patrol insignia. Gold stars mounted on the scroll indicate each successful patrol subsequent to that for which the original insignia was awarded.

Personnel qualified in various classes of diving wear the *Diver* insignia.

Figure 9-16 shows the identification badges worn by command, force, or fleet master chiefs and command career counselors.

The insignia worn by officers and enlisted personnel are identical with the exception of color. Officers wear gold insignia; enlisted personnel wear silver.

In addition to the foregoing, naval astronauts, aerospace physiologists/experimental psychologists, and diving officers wear special insignia. Those presently or previously engaged in presidential service or assigned to certain staffs, such as the organization of the Joint Chiefs of Staff or the staff of the Secretary of Defense, display identification badges.

MEDALS AND AWARDS

According to legend, Alexander the Great began the custom of awarding medals for heroism on the battlefield more than 2,000 years ago. Thus, a historic precedent exists for medals worn by military personnel the world over. The bewildering array of ribbons on the left breast of the dress uniform of veterans often seems quite puzzling to the newcomer in the Navy. These distinctive ribbons represent medals that are too cumbersome to be worn at all times. Personnel wear them in horizontal rows of three each, arranged in order of precedence from the center of the body to the left shoulder and from top row to bottom row.

Fundamentally, the military presents decorations and awards for the purpose of publicly recognizing and rewarding its personnel for the following acts or services:

Extraordinary performance of duty

Exceptionally meritorious service

Conspicuously outstanding acts of heroism

Other acts or services beyond that normally expected

Acts or services that distinguish the individual or unit among those performing similar acts or services

TYPES OF MEDALS AND AWARDS

An *award* is an all-inclusive term covering any decoration, medal, badge, ribbon, or an attachment thereof bestowed on an individual.

A *unit award* is an award made to an operating unit and worn only by members of that unit who participated in the cited action.

A *service award* is an award made to those persons who have participated in designated wars, campaigns, expeditions, and so forth, or who have fulfilled, in a creditable manner, specified service requirements.

A *decoration* is an award bestowed for a specific act of gallantry or meritorious service.

A *medal* is an award presented to an individual for performance of certain duties, acts, or services. It consists of a suspension ribbon, made of distinctive colors, from which a medallion hangs.

A *miniature medal* is a replica of a large medal, made to a scale one-half of the original size.

A *badge* is an award for some special proficiency apart from the duties of the individual's grade or rate. It consists of a medallion hung from a bar or from bars.

A *ribbon* or *ribbon bar* consists of a portion of the suspension ribbon of a medal and is worn instead of the medal. The dimensions of all ribbons are 1 3/8 inches by 3/8 inch.

An *attachment* is any appurtenance, such as a star, clasp, or device, worn on the suspension ribbon of a medal or on the ribbon (ribbon bar).

ORDER OF PRECEDENCE

Navy personnel wear awards in a set precedence according to the following categories:

1. Military decorations
2. Unit awards
3. Nonmilitary decorations
4. Campaign and service awards
5. Foreign decorations, non-U.S. awards, foreign unit awards, and foreign service awards
6. Marksmanship awards
7. Awards of military societies and other organizations

Military Decorations

The following list contains the military decorations, in their order of precedence, authorized for wear on the naval uniform:

Medal of Honor

Navy Cross

Defense Distinguished Service Medal*

Distinguished Service Medal

Silver Star Medal

Defense Superior Service Medal*

Legion of Merit

Distinguished Flying Cross

Navy and Marine Corps Medal

Bronze Star Medal

Purple Heart

Defense Meritorious Service Medal*

Meritorious Service Medal

Air Medal

Joint Service Commendation Medal*

Navy Achievement Medal

Combat Action Ribbon

*Not a Navy decoration—listed for precedence only.

Unit Awards

The following list contains the unit awards, in their order of precedence, authorized for wear after all military decorations:

Presidential Unit Citation

Joint Meritorious Unit Award

Navy Unit Commendation

Meritorious Unit Commendation

Navy E Ribbon

Nonmilitary Decorations

The following list contains certain nonmilitary decorations, but not necessarily in their order of precedence, authorized for wear on the naval uniform after all unit awards. (We only list those which personnel may earn while a member of the naval service. See *Uniform Regulations*, paragraph 10307, for a complete listing.)

Presidential Medal of Freedom

Gold Lifesaving Medal

NASA Distinguished Service Medal

National Sciences Medal

Campaign and Service Awards

The following list contains some of the campaign and service awards, in their order of precedence, authorized for wear on the naval uniform after all nonmilitary decorations:

Prisoner of War (POW) Medal

Good Conduct Medal

Naval Reserve Meritorious Service Medal

Fleet Marine Force Ribbon

China Service Medal

U.S. Antarctic Expedition Medal

Navy Occupation Service Medal

Medal for Humane Action

National Defense Service Medal

Korean Service Medal

Antarctica Service Medal

Armed Forces Expeditionary Medal

Vietnam Service Medal

Humanitarian Service Medal

Sea Service Deployment Ribbon

Naval Arctic Service Ribbon

Naval Reserve Sea Service Ribbon

Navy and Marine Corps Overseas Service Ribbon

Navy Recruiting Service Ribbon

Armed Forces Reserve Medal

Naval Reserve Medal

Merchant Marine Vietnam Service Bar

Foreign Decorations and Non-U.S. Service Awards

Personnel who have been specifically authorized to accept military decorations from foreign governments (see SECNAVINST 1650.1E) may wear them in the order of their receipt after all U.S. service awards. If you possess two or more awards from the same country, the rules of the country concerned determine the order of precedence of those particular awards.

U.S. military personnel who received foreign awards for service in Vietnam may wear them in the following order of precedence:

National Order of Vietnam

Military Merit Medal

Army Distinguished Service Order

Air Force Distinguished Service Order

Navy Distinguished Service Order

Army Meritorious Service Medal

Air Force Meritorious Service Medal

Navy Meritorious Service Medal

Special Service Medal

Gallantry Cross

Air Gallantry Cross

Hazardous Service Medal

Lifesaving Medal

Armed Forces Honor Medal

Staff Service Medal

Technical Service Medal

Training Service Medal

Civil Actions Medal

The following foreign unit awards, listed in their order of precedence, do not require individual legislative authorization. Wear them immediately after all foreign personal decorations:

Philippine Republic Presidential Unit Citation

Korean Presidential Unit Citation

Vietnam Presidential Unit Citation

Republic of Vietnam Meritorious Unit

Citation (Civil Actions Medal)*

*Wear the initial award (ribbon with frame and palm) only.

The following non-U.S. service awards take precedence immediately after foreign unit awards. The precedence of non-U.S. service awards for which naval personnel are eligible to qualify is as follows:

United Nations Service Medal

United Nations Medal

Inter-American Defense Board Medal/Ribbon

Foreign service awards take precedence immediately after non-U.S. service awards.

MARKSMANSHIP AWARDS

The following list contains the only marksmanship badges, in their order of precedence, authorized for wear on the naval uniform:

U.S. Distinguished International Shooter Badge

Distinguished Marksman Badge

Distinguished Pistol Shot Badge

National Trophy Match Rifleman Excellence in Competition Badge (Gold)

National Trophy Match Pistol Shot Excellence in Competition Badge (Gold)

Interservice Rifle Excellence in Competition Badge (Gold)

Interservice Pistol Shot Excellence in Competition Badge (Gold)

Navy Rifleman Excellence in Competition Badge (Gold)

Fleet Rifleman Excellence in Competition Badge (Gold)

Fleet Pistol Shot Excellence in Competition Badge (Gold)

(National, Interservice, Navy and Fleet Badges in silver and bronze continue in the above order with silver taking precedence over bronze)

Expert Rifleman Medal

Expert Pistol Shot Medal

Navy Rifle Marksmanship Ribbon (Expert, Sharpshooter,

Marksman)

President's Hundred Award—Rifle (enlisted personnel only)

AWARDS OF MILITARY SOCIETIES AND OTHER ORGANIZATIONS

The following organizations issue awards authorized for wear on the naval uniform. Wear medals and ribbons, in the order earned, after all U.S. service awards. Wear badges, in the order earned, after marksmanship badges.

Army and Navy Union of the United States

American Legion Citizenship and Scholarship Medal

Veterans of Foreign Wars or other officially recognized

Veterans' Organizations

Medical Scientific Societies

Naval Reserve Association

The Reserve Officers Association (ROA)

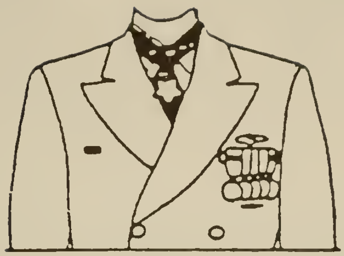
Wear medals, ribbons, and badges adopted by these societies only while actually attending meetings or conventions or while participating in parades or other ceremonies as a member of these organizations.

MANNER OF WEARING AWARDS

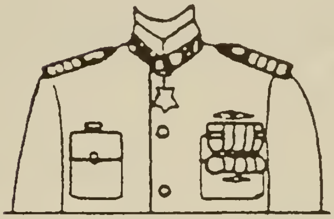
You must wear medals, ribbons, and attachments on appropriate uniforms and in the manner explained in the following paragraphs.

Large Medals

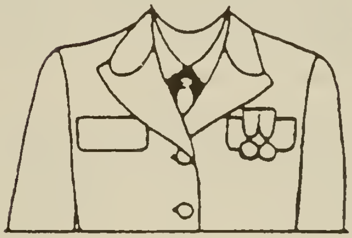
Wear full-size medals on full dress uniforms. Wear the holding bar of the lowest row of medals approximately 1/4 inch above the left breast pocket and clear of the lapel. Ensure the bottoms of the medals dress in a horizontal line, as shown in figure 9-17. When wearing more than one row, arrange medals so that no row contains a lesser number than the row above it. As far as possible, except for the top row, wear the same number of medals in all rows



FULL DRESS BLUE
(MEN)



FULL DRESS WHITE
(MEN - OFFICER &
CPO) (CPOs WEAR
COLLAR INSIGNIA)



FULL DRESS WHITE/BLUE
(WOMEN - OFFICER & CPO)

Figure 9-17.—Proper display of large medals.

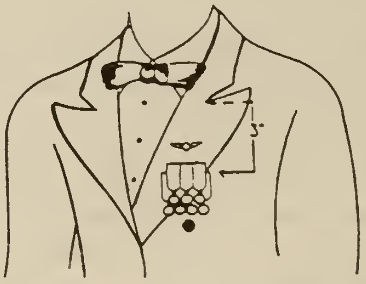
Number of Medals to be Worn	Prescribed Number of Rows	Number of Medals Per Row			
		Top Row	2d Row	3d Row	4th Row
1-5	1 row only	1-5			
6	2	3	3		
7	2	3	4		
8	2	4	4		
9	2	4	5		
10	2	5	5		
11	3	3	4	4	
12	3	4	4	4	
13	3	4	4	5	
14	3	4	5	5	
15	3	5	5	5	
16 and so on	4	4	4	4	4

Figure 9-18.—Manner of wearing medals.

(as in fig. 9-18), three medals side by side, or up to five medals overlapping. Overlap medals equally with the right, or inboard, medal showing in full. Mount upper rows of medals so as to cover the suspension ribbons of the medals below. Arrange awards by seniority from top down and from inboard to outboard. You may wear all medals; but if you possess five or more, wear a minimum of five. Wear the Medal of Honor, worn when either large or miniature medals are prescribed, from a suspension ribbon placed around the neck.

Miniature Medals

Wear miniature medals with formal dress and dinner dress uniforms. On male formal and dinner dress jackets, position the holding bar of the lowest row of medals on the left lapel, 3 inches below the notch (fig. 9-19) and centered on the lapel. If the bar exceeds a length of 2 3/4 inches, extend the bar over the outboard edge of the lapel. When worn on a male officer's blue or white coat, center the lowest bar immediately above the left breast pocket. On a female officer's uniform, center the lowest bar on the left pocket flap of



DINNER DRESS JACKET
(MEN)

Figure 9-19.—Proper display of miniature medals.

the blue or white service coat. On other uniforms, attach the bar in the same relative position.

Wear up to five miniatures on one holding bar. When wearing more than five, arrange in two or more rows as shown in figure 9-18.

Service Ribbons

Wear service ribbons in their order of precedence (from top down and from inboard to outboard) with all service dress uniforms. Allow no intervals between ribbons or rows of ribbons. Do not impregnate with preservatives that change their appearance or wear with transparent covers.

On uniforms, center the lower edge of the bottom row of ribbons approximately 1/4 inch above the left breast pocket.

Wear three ribbons or less in a single horizontal row. When authorized to wear three or more ribbons, wear them in rows of three each. If not in multiples of three, place the lesser number in the uppermost row and center over the row beneath. If you possess three or more, wear a minimum of three; you may wear all if desired.

Attachments

A variety of stars, devices, and clasps are authorized for wear on the suspension ribbons of medals and service ribbons.

STARS.—Stars are made of gold, bronze, or silver. You wear them as follows:

Wear a gold star instead of a second or subsequent award of a military decoration, except for the air medal.

Wear a 3/16-inch bronze star for the second, third, and fourth award of a campaign or service medal.

Wear a silver star instead of five gold or bronze stars, except for the air medal.

Center a single star on the ribbon. If wearing more than one star, place them in a horizontal line close to and symmetrically about the center of the ribbon. Locate the silver star as near the center of the ribbon as symmetry permits. When wearing a star in addition to a silver star or letter device, wear on your right. Wear a second star to your left, and so on. When medals overlap, you may wear all stars to your left. Place stars on the ribbon with two rays pointing down.

LETTER DEVICES.—Wear metal letter devices, when authorized, centered on the appropriate ribbon.

Individuals awarded the Legion of Merit, Bronze Star Medal, Joint Service Commendation Medal, Navy Achievement Medal, or the Commendation Medal for acts or services involving direct participation in combat operations may be authorized to wear a bronze letter *V*.

Personnel who qualify may wear the bronze *S* on the medal, signifying their qualification as a sharpshooter, or the bronze *E*, signifying their expertise, on their Pistol or Rifle Marksmanship medals and ribbons, as appropriate. They wear a silver *E* upon qualifying for the third *E*.

CLASPS.—Wear clasps, when authorized, only on suspension ribbons of large medals. However, you may display stars or other devices worn instead of clasps on the suspension ribbons of miniature medals and on ribbon bars.

Miscellaneous Devices

The following miscellaneous devices are also authorized for wear on the naval uniform:

Fleet Marine Force Combat Operations Insignia: Beginning with World War II, Navy personnel who have been attached to Fleet Marine Force units in active combat with an armed enemy may wear a bronze miniature Marine Corps emblem with the appropriate *World War II Area Campaign Medal*, *Korean Service Ribbon*, *Armed Forces Expeditionary Medal*, and *Vietnam Service Medal*.

Hour Glass: Naval Reserve personnel may wear this device instead of a second or subsequent *Armed Forces Reserve Medal* for each succeeding 10 years of service. (The device is a representation of an hourglass superimposed with the roman numeral X.)

Antarctica Wintered Over Disk: This device consists of a bronze disk inscribed with an outline of the Antarctic Continent. You may wear it on the suspension ribbons of the miniature *Antarctica Service Medal* and on the corresponding ribbon bar (wear a *Wintered Over* clasp with the large medal).

Strike/Flight Numerals: Personnel receiving *Strike/Flight* awards of the *Air Medal* wear a bronze numeral on the medal indicating the total number of awards of this type received after 9 April 1962.

AUTHORIZED UNIFORM MODIFICATIONS

If authorized by your local prescribing authority, you may adopt certain uniform modifications. You may wear the following accessories and clothing:

- **CAP COVERS**

  —Vinyl cap covers

  —A plastic rain cover over the combination cap with the lightweight raincoat

- **COLLAR INSIGNIA**

  —Collar devices with the aviation green working uniform when wearing a coat

  —Collar devices on the windbreaker and the raincoat if you are an officer

- **CUFF LINKS**

  —Mother-of-pearl cuff links with the formal dress uniform

  —Gold cuff links with the dinner dress uniform

- **CUMMERBUND**

  —Wraparound or front-only style cummerbunds with dinner dress jacket uniforms (You must wear the wraparound style with tropical dinner dress blue uniforms.)

- **EARRINGS** (Authorized for women only)

  — Small single-pearl earrings with dinner dress or formal uniforms (Wear only one earring in each ear with all uniforms.)

- **GLOVES** (Carry gloves with the fingers forward when not wearing them)

  —White gloves as prescribed depending on the uniform composition for men and women

  —Lined black gloves when wearing the overcoat, reefer, raincoat, or blue jacket with indicated uniforms in cold weather

- **MEN'S NECKTIE**

  —The aviation green working uniforms *without* the black, four-in-hand necktie when the work situation or industrial safety considerations make wearing the tie impractical or unsafe

- **NAME TAGS**

  —A name tag when authorized by the commander or commanding officer

- **SCARFS**

  —A blue scarf at sea if climatic conditions warrant

  —A white scarf with overcoats, raincoats, reefers, or pea coats

- **LONG-SLEEVE WORKING KHAKI SHIRTS**

  —Long-sleeve working khaki shirts when aboard ship or as otherwise deemed appropriate by your prescribing authority

- **MEN'S WHITE NONEPAULETTED SHIRT**

  —The white nonepauletted shirt instead of the formal white shirt (turn-down collar) with the dinner dress blue uniform

- **WOMEN'S WHITE LONG-SLEEVE SHIRT**

  —The white long-sleeve shirt with the service dress blue uniform

- **SHOES**

  —Gymnasium shoes with working khaki or dungaree uniforms when authorized (They may be prescribed for boat crews.)

  —Safety shoes with any working uniform

- **SWEATER**

  —A blue cardigan sweater with the service dress blue, winter blue, winter working blue, summer khaki, working khaki, and summer white uniforms in working spaces

- **MEN'S TIE CLASP/TIE TACK**

  —A tie clasp or tie tack with any uniform requiring the wear of a four-in-hand necktie (When wearing the uniform coat, ensure the tie tack or clasp is not visible. The use of insignia and devices on tie tacks should be limited to those to which you have some proprietary entitlement.)

You may also adopt the following uniform modifications if authorized by your local prescribing authority:

- **COATS**

  —Remove the service dress blue coat in working spaces

- **UMBRELLA**

  —Carry a plain, black umbrella with any uniform

Women must abide by the following skirt-length regulations:

- **WOMEN'S SKIRT LENGTH**

  —Wear skirts no longer than 1 1/2 inches below the crease of the back of the knee and no higher than 1 1/2 inches above the crease.

  —Wear floor-length formal dress skirts

MAIL-ORDER UNIFORMS

The following mail-order facilities provide uniform items:

Uniform Support Center
P.O. Box 15065
Norfolk, VA 23521-0065

Naval Uniform Made-to-Measure Program
Naval Resale and Services Support Office
Fort Wadsworth
Staten Island, NY 10305-5097

For further ordering information, refer to *U.S. Navy Uniform Regulations*, NAVPERS 15665G, page XIV.

SUMMARY

The uniform promotes a feeling of unity and contributes smartness to the appearance of an individual or a group. The insignia worn upon the uniform can indicate the corps, grade, rate, and specialty, as well as other distinguishing features, such as awards, campaign ribbons, and service stripes to which the wearer is entitled.

The following excerpt, taken from an address delivered to a graduating group of midshipmen, truly expresses the meaning of the uniform:

> Have an exalted pride in the uniform you wear and all that it represents. Wear it correctly; wear it proudly. Salute it with respect when you meet it; behave in it in a seemly manner; protect it when it is offended or in danger. It represents the fleet, the Nation, your home, and your family. It is a symbol of all that is dear to you and of all that men are willing to die for.

The United States Navy has had a basic uniform policy for many years. The purpose of the uniform policy is to ensure that naval personnel have attractive, distinctive, and practical uniforms.

To clarify any questions that may arise concerning uniforms, consult *U.S. Navy Uniform Regulations* (NAVPERS 15665G), which provides the basic naval uniform policy.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

U.S. Navy Uniform Regulations, NAVPERS 15665G, Bureau of Naval Personnel, Washington, D.C., 1987.

SUGGESTED READING

Bearden, Bill, and Bill Wedertz, *The Bluejacket's Manual*, 20th ed., United States Naval Institute Press, Annapolis, Md., 1978.

PEA COAT

SAILORS WHO HAVE TO ENDURE PEA-SOUP WEATHER OFTEN DON THEIR PEA COATS BUT THE COAT'S NAME ISN'T DERIVED FROM THE WEATHER.

THE HEAVY TOP COAT WORN IN COLD, MISERABLE WEATHER BY SEAFARING MEN WAS ONCE TAILORED FROM PILOT CLOTH - A HEAVY, COARSE, STOUT KIND OF TWILLED BLUE CLOTH WITH THE NAP ON ONE SIDE. THE CLOTH WAS SOMETIMES CALLED P-CLOTH FOR THE INITIAL LETTER OF THE WORD AND THE GARMENT MADE FROM IT WAS CALLED A P-JACKET - LATER A PEA COAT. THE TERM HAS BEEN USED SINCE 1723 TO DENOTE COATS MADE FROM THAT CLOTH.

CHAPTER 10

NAVAL EDUCATIONAL INSTITUTIONS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the historical foundation of the U.S. Naval Academy.
2. Describe the appointment process to the Naval Academy.
3. Identify the eligibility criteria for appointment to the Naval Academy.
4. Identify the eligibility requirements for entering the NROTC Program.
5. Describe the NROTC organization on the college campus.
6. Identify the purpose and curriculum of Officer Candidate School.
7. Identify the purpose and curriculum of Aviation Officer Candidate School.
8. Identify the purpose and curriculum of the Naval Postgraduate School.
9. List the degrees offered by the Uniformed Services University of the Health Sciences.
10. Identify the mission and historical foundation of the Naval War College.

Career Navy officers who, after being commissioned, feel that their academic life is over are sadly mistaken. Formal education is a recurring part of their entire career. The use officers make of it determines to a great measure their success.

The Navy places importance on formal officer education for two primary reasons. First, the overall mission of the Navy and the personnel needed to accomplish this mission have increased tremendously in scope and complexity. Therefore, the Navy must thoroughly train the people primarily responsible for this mission. The second—and equally important—reason is that every career officer's eventual aim is to command. Succession to command presumes a sound knowledge of the operations of the unit to be commanded.

In this chapter we will look at some of the educational institutions used to train naval officers. We will discuss both commissioning source schools and continuing education schools. You may have the opportunity to attend some of these schools during your naval career.

UNITED STATES NAVAL ACADEMY

SIGNIFICANT DATES

10 Dec. 1815	Navy establishes school for its officers.
10 Oct. 1845	The Naval School opens at Annapolis, Maryland (now the Naval Academy).
11 Jul. 1846	First Naval Academy graduate, Richmond Aulick, receives commission as a passed midshipman.
5 Feb. 1852	Navy dedicates chapel built at Annapolis, Maryland; first to be built on Navy property.

5 May 1861	Naval Academy transfers to Newport, Rhode Island; returns to Annapolis, Maryland, on 9 August 1865.
11 Sep. 1872	James Henry Conyers, first black midshipman, enters Naval Academy.
26 Jun. 1884	Congress authorizes commissioning of Naval Academy graduates as ensigns.
29 Nov. 1890	Navy beats Army 24-0 in first Army-Navy football game.
2 Apr. 1898	Naval Academy adopts coat of arms.
3 Jun. 1949	The Naval Academy graduates its first black, John Wesley Brown.
28 May 1980	Naval Academy graduates its first women officers.

During the first 50 years of the United States Navy's existence, it had no organized, efficient Navywide system for training its prospective officers. Midshipmen received most of their training aboard ship under the ship's chaplain. They received some training, however, from time to time at various schools ashore.

Despite growing evidence of the need for a naval academy, efforts to establish it were rebuffed until 1845. At that time the Honorable George Bancroft, distinguished historian and educator, became Secretary of the Navy in President Polk's cabinet. With the establishment of a naval academy in mind, Secretary Bancroft made several adroit moves, including obtaining Fort Severn from the War Department. Fort Severn occupied 10 acres on a neck of land called Windmill Point at Annapolis. There, in late 1845, he set up a naval school for midshipmen. The school was officially designated as the United States Naval Academy some 5 years later.

Under Commander Franklin Buchanan, its first superintendent, the new school got under way on 10 October 1845. The original seven-member faculty consisted of four officers and three civilians.

The school opened with a student body of 60, whose members were divided into a junior and senior class. They were housed in several small buildings, popularly named Apollo Row, Rowdy Row, the Gas House, Brandywine Cottage, and the Abbey. The names of the buildings reflected the principal characteristics of their residents or, in the case of Brandywine Cottage, the ship from which the residents came. The subjects studied included gunnery, naval tactics, engineering, chemistry, mathematics, astronomy, French, and English.

Some of the students had come to the new school without any previous sea duty and were designated "acting midshipmen." Most students, however, had appointments as midshipmen and had several years of sea duty. (The acting midshipmen were more comparable to today's midshipmen than the latter.)

During the first few years, many of the midshipmen had difficulty taking their studies or the school discipline seriously. This difficulty probably resulted because of their previous sea duty experience, their ages (ranging up to 27 years), and their being used to unrestricted liberty when ashore. This is reflected by the following reportedly true stories.

One incident concerned the midshipmen living at the Abbey, who supposedly led exemplary lives. One night, however, the officer of the day found the Abbey deserted. Upon investigation the officer discovered a tunnel that went under the yard wall immediately adjacent to and toward Annapolis. The next day the school ended the use of the Abbey as a midshipmen's residence.

On another occasion, the midshipmen were reported to have hung Professor Henry H. Lockwood in effigy from the Academy flagstaff one St. Patrick's Day. For this, the ringleaders were ordered to appear before a court-martial board for insulting a superior officer. They claimed in defense the professor was not superior to students since he was not an officer. (Congress eventually remedied this situation by raising instructors to the equivalent ranks of officers.)

Another story about this period deals with the linguistic prowess shown by one Midshipman Nelson during the annual examinations. Professor Arsene Girault, instructor in French, had patiently tried to teach Nelson to speak something resembling that language. When time for the exam arrived, however, Nelson knew he could do nothing of the kind. Therefore, he memorized a series of phrases out of the French textbook.

During the examination, with half a dozen commodores present, the Professor, speaking in French, asked, "Mr. Nelson, what is your native state?"

Nelson, not understanding a word of the question, replied with one of his memorized phrases, "Thank You, I am very well."

The startled Professor glared at him and continued, "What course have you just finished?"

"I am 24 years of age," replied Nelson.

One of the commodores present during the examination was Commodore Matthew C. Perry, who did not understand a word of French. As the situation reached an impasse, Commodore Perry arose from his seat and congratulated Girault on his success in teaching the midshipman to speak French with such fluency and accuracy.

Initially the course of study at the Academy took 5 years. Of these, midshipmen spent only the first and last at Annapolis; they spent the intervening 3 years at sea. During 1850 and 1851 the school was reorganized as the U.S. Naval Academy, and the course of study was changed to 4 consecutive years. Summer practice cruises replaced the omitted sea service. Thus, today's basic 4-year curriculum first appeared at the Naval Academy over 100 years ago, long before it became general practice in American undergraduate education.

With the reorganization that changed the Naval School to the Naval Academy, the school's executive officer became the commandant of midshipmen. The school also adopted a naval uniform for acting midshipmen and inaugurated the marking scale of 4.0.

The reorganization also provided that the holder of a certificate of graduation was entitled to a midshipman's warrant. After 2 years of sea duty, the midshipman could return for an examination for lieutenant. Only Naval Academy graduates were to receive the warrants—the first step toward regulating the quality and quantity of officers in the fleet.

In 1851 the method of appointing midshipmen in proportion to the members of the House of Representatives was established. In 1852 the proviso requiring an Academy aspirant to receive the recommendation of his Congressman was added.

In 1855 the original "fourth class" entered the academy. Almost simultaneously the "my plebe" tradition developed. With this tradition the new third classmen selected particular members of the incoming class over whom they kept a watchful eye. This eventually became a first classman privilege. Until the advent of the squad system in 1965, the closest relationship at the Naval Academy was between the first classmen and the plebes.

Attrition during the early years was heavy. Only 269 midshipmen of the first 1,209 completed the course of study. George Dewey entered with a class of 75; after their annual examination in June 1855, only 38 were retained. Of these, the future hero of Manila Bay ranked 35th! At graduation, however, he ranked fifth in his class of 15.

The 1850s also saw two other firsts at the Academy. Franklin Pierce became the first President of the United States to visit the Academy when he attended a naval ball there in 1856. Two years later the school's first literary society was formed. It honored James Lawrence, whose words, "Don't give up the ship!" adorn Memorial Hall.

The coming of the Civil War brought the young school trying years in 1860 and 1861. As states seceded from the Union, the tension mounted. Finally, one day in April 1861, all hands were ordered to muster aboard the *Constitution*, the school ship. Lieutenant Christopher R. P. Rogers, commandant of midshipmen, addressed the group and ordered all those who desired to resign to fall out of ranks. Many did and, amid sad farewells, went off to join the Confederacy.

Officers at the Academy also went their respective ways, including the brothers William and Foxhall Parker. William had argued they should remain with the Union because of education and Navy ties; Foxhall argued for the Confederacy because of family and state connections. They separated after their discussion; but each had been so persuasive that, unknown to each other, William resigned and Foxhall remained with the Union.

The rapidly expanding Union Navy urgently needed junior officers. Therefore, the first, second, and third class midshipmen who remained at the Academy were sent off to war. Shortly thereafter the fourth class, aboard the *Constitution*, sailed for Newport, Rhode Island, which became the home of the Academy for the duration of the War.

Organized athletics were introduced to the Academy during the post-Civil War period. In 1867 the Academy formed class baseball teams and held the first of a series of annual Thanksgiving athletic carnivals. The athletic program included track and field competition, baseball, rowing, and gymnastics. In 1870 the Academy began competing against outside crews in rowing. Football was being played at the Academy by 1880; and in 1882 the school's football team played its first outside game, defeating the Clifton Football Club of Baltimore 8-0. Eight years later came the first football game between Annapolis and West Point, with the Navy winning 24-0.

The Naval Academy Athletic Association was founded in 1892, and in 1894 Walter B. Izard of the Academy set a new world record for the 50-yard swim.

Following the Spanish-American War, an extensive building program began. Under this program, nearly all the existing buildings at the Academy were eventually replaced with the French Renaissance-style buildings that stand today. The first steps toward this program began in 1895 when the Academy's buildings were condemned as a menace to health and safety. Following this, Colonel Robert Means Thompson, class of 1868 and a member of the Board of Visitors, engaged a noted architect named Ernest Flagg. Flagg drew a plan for new buildings as well as a completely new arrangement of the yard. Congress approved, and in 1899 the architect's plans began to be carried out.

By this time, the original 10-acre yard had been expanded greatly through various acquisitions (fig. 10-1). The mansion and gardens of the Governor of Maryland were purchased in 1866, and 10 acres were purchased from St. John's College a year later. In 1868 the 65 acres now occupied by the Naval Academy cemetery and the naval hospital were purchased. More land was needed, however, and most of this was provided by the mud dredged out of Chesapeake Bay.

During the early 1900s, a number of buildings were completed under the new plan. Dahlgren Hall and MacDonough Hall were completed in 1903; Isherwood Hall and the officer's club in 1905; and Bancroft Hall in 1906. The Administration Building, Mahan Hall, Sampson Hall, and Maury Hall were completed in 1907.

Bancroft Hall, built as the dormitory for all midshipmen, is the main building at the Academy. Six wings have been added to the building since 1906 to keep pace with the brigade expansion. Within Bancroft Hall is Memorial Hall, which pays tribute to American naval heroes. Its most

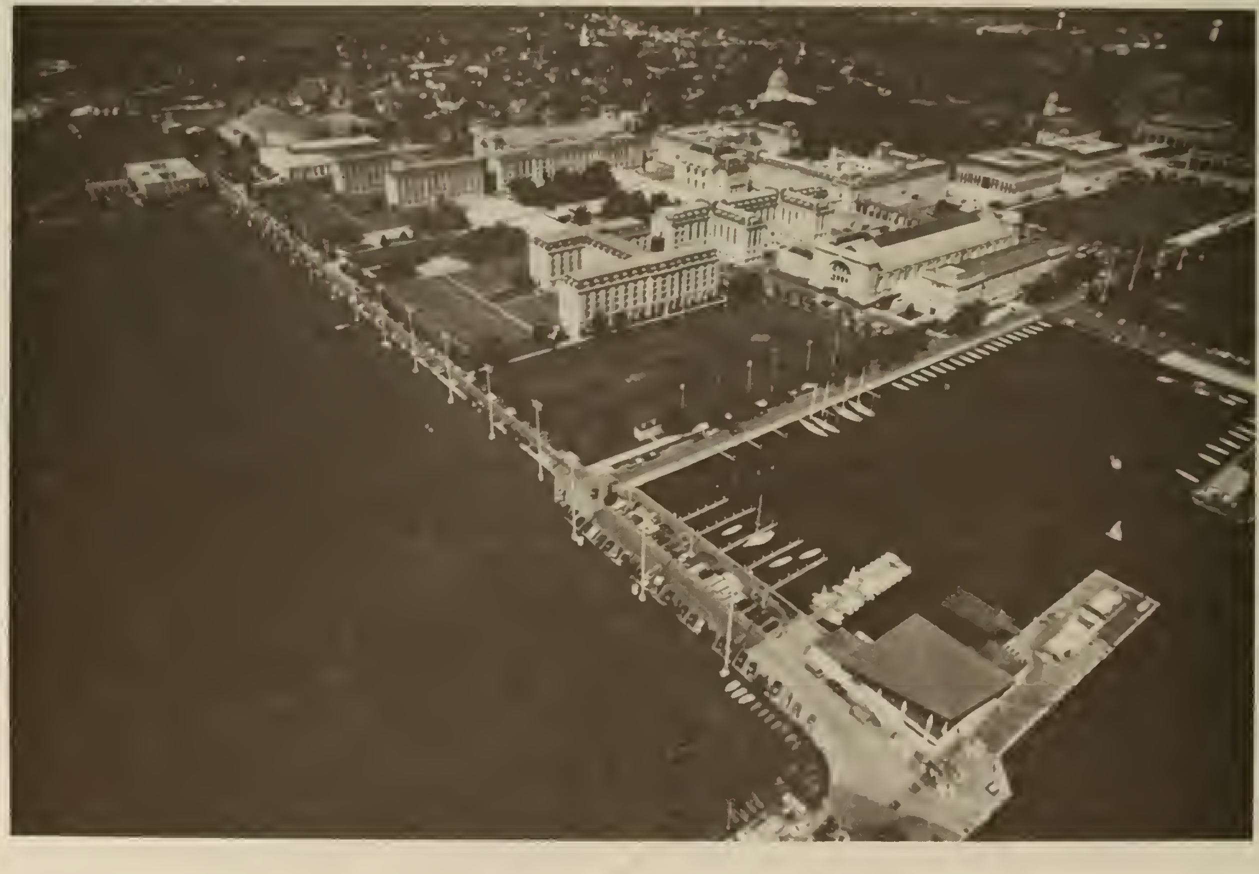


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Figure 10-1.—An aerial view of the U.S. Naval Academy.

stirring exhibit is the faded blue flag on which is sewn in uneven white letters the undying words of Captain James Lawrence, "Don't give up the ship."

The Naval Academy Chapel, with its great dome that dominates the yard, was completed in 1908. One striking feature of the chapel is the stained-glass windows. Of these, the three main windows are memorials to Admirals Porter and Farragut and Rear Admiral Sampson. The two flanking windows portray the mission of the chapel. One shows Sir Galahad with his sheathed sword before him. The other portrays Christ showing a newly commissioned ensign the beacon he must follow as an officer. The bronze doors of the chapel, another of its noteworthy features, were the gifts of Colonel Robert Means Thompson.

The original chapel was constructed in the form of a Greek cross. In 1939 an extension was added to increase its capacity, which changed the construction to the form of a Christian cross. Another notable feature of the chapel is the votive ship that hangs from a chain in the arch of the nave. It was presented to the Academy in 1941 by alumni who had served in the Construction Corps. (The idea of exhibiting a ship model in a church goes back to ancient days. The model symbolizes the dedication of seafaring men to their God.)

Beneath the chapel lies the crypt containing the sarcophagus (marble coffin) of John Paul Jones. Completed in 1913, the sarcophagus is surrounded by eight columns of Pyrenean marble. Inlaid in a circle in the marble floor around it are the names of the seven ships Jones commanded or captured during the revolutionary war: *Serapis*, *Alliance*, *Providence*, *Bonhomme Richard*, *Alfred*, *Ariel*, and *Ranger*.

Until brought to Annapolis in 1905, Jones' remains had been in France since his death over a century before. The reinterment in 1906 was one of the most impressive ceremonies in the Academy's history. For the occasion a large crowd filled Dahlgren Hall to honor the memory of the "Father of the American Navy" and to hear President Theodore Roosevelt. The President closed the day with these ringing words, "The man who never surrenders never has to make excuses!"

Attending the Academy during this period of growth were several midshipmen who later led the Navy during World War II, the period of the Navy's greatest expansion. Among them were Ernest F. King, William F. Halsey, Chester Nimitz, Raymond Spruance, Harold R. Stark, Richmond K. Turner, and Marc A. Mitscher.

An important change at the Academy at this time concerned the summer practice cruises. Ever since 1851 these cruises had normally taken place in practice ships assigned to the Academy. These included such famous sailing ships as the *Constitution* and the *Constellation* and the last square rigger built (1900) for the U.S. Navy, the *Chesapeake*. In 1904, however, part of the midshipmen embarked in the coast squadron of the North Atlantic Fleet. This procedure was repeated yearly until 1912. At that time the Navy began the present system of holding summer practice cruises only in ships of the fleet.

An act of Congress in 1902 restored to Academy students the nautical title "midshipmen." They had been given this title from 1862 to 1870 and are called by this title today. (From 1845 to 1862 they had been called "acting midshipmen on probation"; from 1870 to 1882, "cadet midshipmen"; and from 1882 to 1902, "naval cadets.")

In 1898 the Academy adopted a coat of arms. The coat of arms consists of a trident, the motto "Ex Scientia Tridens," a book, and a shield exhibiting a Roman galley coming bows on into action. The trident is the ancient symbol of sea power. The motto "Ex Scientia Tridens," which means "From knowledge, sea power," represents the purpose of the Academy. The book depicts scholastic ideas.

In 1907 the Academy's bandmaster, Lieutenant Charles A. Zimmerman, and a choir member, Midshipman First Class Alfred H. Miles, composed the Navy's battle song, "Anchors Aweigh." The midshipmen first sang it at the Army-Navy football game in 1907 as the Navy won its second successive victory over West Point.

During this period the Academy strived to develop its midshipmen into gentlemen with the strictest sense of dignity and honor. A regulation about dancing serves as an example of the close attention the Academy gave to this task. This regulation, formulated in 1913 by the Department of Discipline (the forerunner of today's Executive Department), presented the following restrictions:

1. None of the modern dances will be performed under any circumstances.
2. Midshipmen must keep their left arm straight during all dances.
3. A space of 3 inches must be kept between the dancing couple.

4. Midshipmen must not take their partner's arm under any circumstances.
5. Midshipmen will not leave the ballroom floor until the dance has been completed and all officers and their guests have left.

The Department of Discipline also strictly regulated smoking. For many years, midshipmen were not permitted to smoke in their rooms. Later, first classmen were given the privilege of keeping their smoking articles in Recreation Hall; there they could gather after dinner to smoke and talk. The custom gave Recreation Hall its more popular name "Smoke Hall."

A significant and colorful event in the life of a midshipman—the Ring Dance—had its origin in the 1920s. For some time first classmen had observed the custom of throwing second classmen into Dewey Basin as soon as the latter had become eligible to wear their class rings. (They became eligible to wear their class rings after passing their final exams for the year.) In 1924 this custom resulted in the tragic drowning of a second classman, so it was replaced by the Ring Dance.

The Ring Dance has several special features. One is the Ring Dance Dinner, the only occasion when midshipmen may entertain their ladies at dinner in the mess hall. The most important feature, however, is the presentation of the rings. At the scene of the dance, on a carpeted dais, stands a huge golden ring modeled after the class ring. The ring is surmounted by a glowing globe that simulates the jewel of the ring. As each couple approaches the replica of the ring, the lady dips the midshipman's ring, suspended from a ribbon, into a compass binnacle. The binnacle is filled with water from the Severn River and the seven seas, symbolic of the midshipman's present and future home. The couple then passes through the replica where she places the ring on his finger. It is a moment charged with romance, especially if he presents her with a miniature class ring, regarded as equivalent to an engagement ring. They then kiss and seal the ceremony.

In 1926 an exciting and historical Army-Navy football game took place at Soldier's Field in Chicago. The largest crowd ever to watch a football game—110,000 persons—saw Navy come from behind to tie Army 21-21. Midshipman Tom Hamilton (now Rear Admiral Thomas J. Hamilton, Ret.) was the Navy's hero as he kicked the tying point that gave Navy an undefeated season and a claim to the national title.

In 1930 six midshipmen were awarded Rhodes Scholarships—a record number. In that same year, the Association of American Universities accredited the Academy as a member. Following that, Congress passed a law in 1933 authorizing the Academy to grant bachelor of science degrees to all graduates, beginning with the class of 1931. Subsequently, in 1939 Congress authorized the award of the B.S. degree to all living graduates.

After the entry of the United States into World War II, the Academy accelerated its course of study. The class of 1942 graduated 6 months early in December 1941, and the class of 1943 joined them in the fleet the following June. Throughout the war, the three remaining classes (plebes, youngsters, and finishers) pursued a program that placed greater emphasis on professional and technological courses.

The brilliant role played by Academy graduates in all theaters in World War II forms an indelible page in the nation's and Navy's history.

The ending of World War II caused a minor mishap to one noted landmark in the Academy yard—the Japanese Bell. In 1845 the Regent of Napha, Ryukyu Islands, presented this bell to Commodore Matthew C. Perry during his expedition to Japan. After his death, his widow presented it to the Naval Academy (in 1859) according to his wish. Traditionally, the bell is rung only after a victory over Army in football. An exception to this was made on V-J Day in 1945 when the bell was struck with such enthusiasm that it cracked. Today a replica of the Japanese Bell stands outside Bancroft Hall, the original having been returned to Okinawa in 1987.

Today these traditions and many others remain at the Naval Academy. Plebes still come through the Academy gates in July and do not leave the yard again until the end of August. White-capped midshipmen in dress blue and brass buttons still pass in review on Worden Field, and drum rolls still thunder in the courtyard of Bancroft Hall during meal formations.

Academy graduates continue to distinguish themselves in military roles as well as in public life. President Jimmy Carter (class of 1947) was a successful businessman, a state governor, and the first Academy graduate to hold the highest office in the land.

Along with the continuing traditions at the Naval Academy, exciting changes, academically and physically, reflect the trends and needs of the times. Midshipmen no longer march to classes, just as they are no longer locked into the same rigid academic pattern. New emphasis on broadening their academic opportunity has expanded the old basic core curriculum into majors ranging from aerospace engineering, to history, to oceanography. A little more than a decade ago, all midshipmen took the same 40 courses. Today's midshipmen can select from more than 500 courses, including political science, languages, and computer science.

The professional changes at Annapolis are also important. Along with the emphasis on broadening the academic curriculum, the Academy provides more intense officer training. Upperclassmen have more of the responsibility for plebe training and for leadership of the entire 4,500-person brigade of midshipmen.

New buildings—modern, yet in harmony with the classic structures from the past—now line the Severn River. The twin towers of the science and mathematics buildings, Michelson and Chauvenet Halls, have been in use since 1971. The 560,000—volume Nimitz Library, dedicated in the fall of 1973, contains complete audiovisual and closed-circuit television facilities. Rickover Hall, the Academy's engineering studies complex, is as extensive a laboratory facility as any in the nation.

On the waterfront rises the Robert Crown Sailing Center, dedicated in April 1974. Built from privately donated funds, the center houses the Intercollegiate Sailing Hall of Fame. It also provides facilities for the Academy's program of varsity and intramural sailing training. Venerable Dahlgren Hall, for years an armory and drill hall, has been converted with private donations into the Midshipman Activity Center. This center contains a hockey-size skating rink, snack bar, and other recreational facilities.

The new Brigade Activity Center, which opened in 1990, can seat the entire brigade. It houses a theater and concert hall and is used for brigade professional programs.

Today's Academy boasts improved facilities along with a sophisticated professional training program to meet the more complex needs of today's nuclear Navy. These improvements and the increased versatility of the academic program and extracurricular activities provide midshipmen with a well-balanced education.

Beginning with the class of 1980, the Academy offered this education to women as well as men. Under a new law passed by Congress, the Naval Academy admitted the first women midshipmen with the plebe class that reported in July 1976.

Instead of the 7 founding professors, the Academy faculty now numbers more than 610. Half of the faculty are naval officers who serve on a rotating basis, bringing fresh thinking from the fleet. The other half are civilians, ensuring continuity and input from the academic community.

Some 50 young men crowded into the old barracks of the 10-acre Fort Severn in 1845 to open the new national Naval School. Now more than 4,500 midshipmen walk the 309 acres of today's Naval Academy.

APPOINTMENT PROCESS

Appointments are granted to applicants to the Naval Academy by either their Congressman or the Vice President. The Vice President and each Congressman may have five of their appointees in the Academy at any one time. They may allocate these on the basis of 1 principal and 9 alternate appointments or award them competitively with 10 applicants vying for each vacancy.

Remaining appointments are strictly competitive and are awarded on the basis of those considered best qualified as set in the Academy's "Whole-Person Evaluation." Competitive appointments are available in the following general classes:

1. Presidential	100 each year to sons and daughters of members of the Regular and Reserve components of the armed services who are on active duty and have served continuously on active duty for at least 8 years; retired personnel; and those who died while in receipt of retired pay
2. Regular Navy and Marine Corps	85 enlisted members per year
3. Naval and Marine Corps Reserve	85 enlisted members per year
4. NROTC students and graduates of honor military and naval schools	20 annually (normally 10 from each category)

5. Deceased and disabled veterans	40 for the sons and daughters of members of the armed forces who were killed in action or died of, or have a 100 percent disability resulting from, wounds or injuries received or diseases contracted in, or preexisting injury or disease aggravated by, active service
6. District of Columbia	5 at any one time
7. Virgin Islands, Guam, American Samoa, Puerto Rico, and Canal Zone	1 at any one time
8. American Republics	20 at any one time; no more than 3 from any one country
9. Congressionally qualified alternates	The first 150 vacancies of an unfilled class quota for congressionally appointed alternates

Candidates receiving Vice Presidential and Congressional appointments and those who are children of holders of the Medal of Honor receive direct appointments.

To bring an entering class up to strength, the Secretary of the Navy (SECNAV) may appoint additional nominees. SECNAV appoints these from the remaining qualified alternates and competitors in their order of merit. Three-fourths of these appointments must be filled by congressionally qualified alternates.

By law, a small number of nationals from certain foreign countries may attend. They are not eligible for commissions, but receive the same training and are governed by the same regulations as other students.

Applicants should submit a pre-candidate questionnaire to the Naval Academy in the late spring of their junior year of high school. The Naval Academy will open a pre-admission file upon receipt of this questionnaire and will provide an initial evaluation to the applicant by early summer.

For more information, you may request a pre-candidate questionnaire by writing to the following address:

Director, Candidate Guidance
Code 304
U.S. Naval Academy
Annapolis, MD 21402-5018

ELIGIBILITY CRITERIA FOR APPOINTMENT

In addition to the competitive appointment process, applicants must meet the following eligibility criteria to gain entry to the Naval Academy:

- Be a U.S. citizen
- Be of good moral character
- Be unmarried and have no dependents
- Be at least 17, but not over 22, years of age on 1 July of year entering
- Be physically qualified in accordance with Navy standards
- Have minimum SAT scores of 520 (verbal) and 600 (math); have minimum ACT scores of 25 (English) and 31 (math)

NAVAL RESERVE OFFICER TRAINING CORPS

The Naval Reserve Officer Training Corps (NROTC) Program was founded in 1926. This program produces Navy officers from NROTC units in operation at many colleges and universities throughout the United States. The annual output is approximately 1,500 new officers commissioned mainly in the unrestricted line.

The NROTC Program is highly competitive. It educates and trains qualified young men and women for service as commissioned officers of the Regular Navy and Marine Corps. NROTC midshipmen lead essentially the same campus life as other undergraduates. They make their own arrangements for enrollment and room and board, and they pursue academic studies leading to a bachelor's degree. They may also participate in any extracurricular activities that do not interfere with their NROTC obligations.

ELIGIBILITY REQUIREMENTS

There are currently two major NROTC programs. The first is the Scholarship Program, with 8,000 authorized scholarships. It provides for tuition, books, instructional fees, and a $100-per-month subsistence allowance during the academic year for a maximum of 40 academic months. Scholarship students incur a service obligation at the end of their sophomore year. Students incur a 4-year active-duty obligation upon commissioning.

The second program is called the College Program. Although this program has no enrollment limit, it averages between 2,000 and 3,000 students annually. The program pays a $100-per-month subsistence allowance during the junior and senior year of college. Students must serve 3 years of active duty upon commissioning.

Applicants for both programs must meet the following eligibility requirements:

- Be a U.S. citizen
- Be accepted for admission as a civilian student to one of the NROTC participating colleges or universities
- Be at least 17 years of age, but have not reached 27 1/2 by 30 June of the year of college graduation
- Be physically qualified in accordance with Navy standards
- Be of good moral character
- Have minimum SAT scores of 450 (verbal) and 500 (math); have ACT scores of 19 (English) and 23 (math)

NROTC ORGANIZATION

The NROTC organization of a college or university is centered in a Department of Naval Science. A Navy captain or Marine Corps colonel with the title of Professor of Naval Science normally heads the NROTC organization. The instructors, Navy and Marine Corps officers, hold academic ranks as assistant professors. The officers selected for this important duty must possess academic ability and have diversified duty experience. Their experience adds to the store of academic knowledge that they impart to the midshipmen. It also provides a realistic framework from which they can instill in their students a highly motivated interest in the naval service.

Normally, the Navy instructors teach eight naval professional courses and provide weekly laboratory periods for practical work in these courses. In early fall and late spring, instructors use this lab time for close-order drill.

Future Marine Corps officers make their choice between the Navy or the Marine Corps during the first 2 years. For the last 2 years, their program of instruction and training differs from that given prospective Navy officers.

NROTC scholarship students may select, with the approval of academic authorities, a field of study leading to a baccalaureate degree, subject to certain limitations. Exempted as majors, for example, are studies in such academic fields as music, theology, and others deemed of limited value to naval officers.

The Navy requires that midshipmen acquire a background in physics and mathematics and a general proficiency in written and oral expression. Students are encouraged to participate in any of the school's extracurricular activities as long as they do not conflict with Navy classes and drills.

NROTC midshipmen have about the same summer cruise obligations as their contemporaries from the Naval Academy.

OFFICER CANDIDATE SCHOOL

Officer Candidate School (OCS) was founded in 1951 at Newport, Rhode Island, in response to an increased demand for naval officers during the Korean conflict. OCS continues today as a major source of recruitment of male and female officers for the United States Navy. It provides college graduates from the civilian and Navy enlisted communities an opportunity for a naval commission.

''Leadership is our most important product'' stands as the motto of OCS. The school places officer candidates in positions of responsibility and closely evaluates their leadership potential in addition to academics. The pace of OCS is strenuous and demanding. In 16 weeks, officer candidates must complete a highly concentrated course in the fundamentals of naval science. Naval science subjects studied include seamanship, navigation, naval engineering, naval warfare, military justice, and principles of leadership. Additionally, students weekly participate in 6 hours of physical training activities.

To reenforce principles learned in the classroom, the school requires students to engage in "hands-on" training. This includes underway experience on yard-patrol craft and time in mock-ups of ship's bridges and combat information centers. It also includes training on the USS Buttercup, a damage control trainer that simulates a sinking ship.

Upon successful completion of the course of instruction, officer candidates receive a commission as an ensign in the United States Naval Reserve. They then serve 4 years on active duty and 2 years in an inactive Reserve status. The top 10 percent of each graduating class receive recognition as distinguished naval graduates and are offered a Regular U.S. Navy commission.

AVIATION OFFICER CANDIDATE SCHOOL

The Navy began the Aviation Officer Candidate School (AOCS) Program in 1955. It provides an avenue to commissioned service for applicants interested in serving as naval aviators, naval flight officers, intelligence officers, or aviation maintenance duty officers.

Candidates selected for AOCS attend 14 weeks of indoctrination training at Pensacola, Florida. Subjects of instruction include seamanship, organizational operations, naval administration, sea power, military law, naval leadership, aeronautics, engineering, and navigation. Upon successful completion they receive their commissions as ensigns.

Members desiring pilot training continue their flight training for 12 to 18 months after commissioning. Following successful completion of the additional flight training, candidates are designated naval aviators and accept a 7-year active-duty obligation.

Naval flight officer (NFO) candidates, after commissioning, will continue their training leading to designation as NFOs. NFOs incur a 6-year active-duty obligation following their designation.

Candidates selected for the intelligence program and the aviation maintenance duty officer program undergo additional training following commissioning. They must serve on active duty for 4 years from their date of commissioning.

NAVAL POSTGRADUATE SCHOOL

The Naval Postgraduate School (NPS) was officially established at Monterey, California, in 1951, although the original postgraduate school dates back to the early 1900s.

The current total educational emphasis of this school is on graduate-level programs; the school meets 80 percent of the Navy's graduate education requirement. NPS has over 40 programs of study, ranging from the traditional engineering and physical sciences to the rapidly evolving space science programs. No other university offers Navy-oriented graduate curricula with such a broad span of topics. Studies include aircraft combat survivability, fiber optics, robotics, artificial intelligence, data base systems, and lightweight satellites.

Lieutenant and lieutenant commander selection boards screen officers for NPS. The boards also determine the officers' areas of study, based on the officers' designators and academic profile codes. Potential NPS students discuss with their detailers how the school can fit into their careers and whether or not they wish to attend.

NPS is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

The Uniformed Services University of the Health Sciences was established to educate career-oriented medical officers for the military services. The university currently incorporates the F. Edward Hébert School of Medicine graduate and continuing education programs. It is located on the Naval Medical Command Reservation in Bethesda, Maryland.

A faculty committee on admissions makes student selections. The committee bases its selections upon candidates' motivation and dedication to a career in the uniformed services and an overall appraisal of their personal and intellectual characteristics. Applicants must be U.S. citizens and meet the physical and personal qualifications for commissioning. They also must give evidence of a strong commitment to serving as a uniformed medical officer. The graduating medical student must serve a period of obligation of not less than 7 years.

The university's F. Edward Hébert School of Medicine now has an enrollment of over 600 officers in training for their M.D. degrees. It has an additional enrollment of over 100

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Figure 10-2.—One of the foremost seaman of his day, Rear Admiral Luce was the driving influence behind the institution of the U.S. Naval War College in 1884 and the use of fleet exercises as battle practice for our expanding naval armada.

individuals in one of its basic sciences graduate programs.

The university's fully accredited graduate program is available to both civilian and military applicants. Graduates may receive the Ph.D. degree in one of the biomedical sciences, the master of public health degree, or the master of tropical medicine and hygiene degree. In addition, the university serves as the focus for a vigorous continuing medical education program that supports the military services. The university offers unique training opportunities both at the Bethesda campus and at military bases around the world, where such training is otherwise unavailable.

NAVAL WAR COLLEGE

The Naval War College was established to provide military officers a chance to study their profession in mid-career, much as many civilian professionals frequently do. The mission of the Naval War College is to enhance the professional capabilities of its students. It helps students in both command and management positions increase their ability to make sound decisions. It also helps them to conduct research leading to the development of advanced strategic and tactical concepts for the future employment of naval forces.

The Naval War College was established on 6 October 1884 by order of the Secretary of the Navy. Rear Admiral Stephen B. Luce (fig. 10-2)

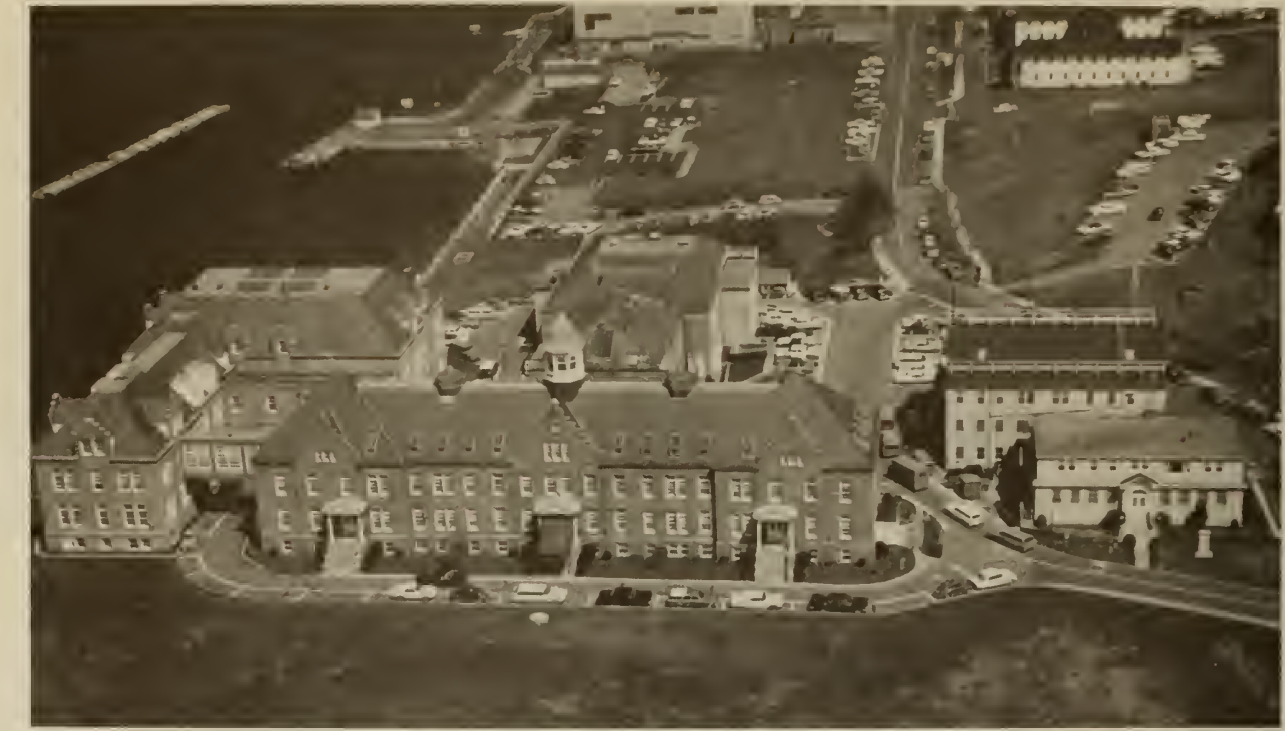

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Figure 10-3.—The U.S. Naval War College, Newport, Rhode Island.

was appointed as the first president of the Naval War College in Newport, Rhode Island (fig. 10-3).

Luce's conception of the nature and needs of the naval profession shaped the War College from its start. He appreciated the interrelationship of naval power, technology, and international politics and the need for senior officers to understand such complex issues. Luce organized the War College as a place of original research on all questions about war, the statesmanship connected with war, or the prevention of war.

Luce's original format has carried through over the years. Over the last 100 years, the Naval War College has shaped its educational requirements to meet the professional and environmental needs of the Navy.

SUMMARY

We live in a volatile and complex world in which sudden and unexpected changes in world leadership frequently occur. In addition, technological innovations frequently occur in computer science, artificial intelligence, and robotics. The Navy must have the ability to apply new technologies and to respond quickly to new challenges. The Navy must also be able to develop sound national and international policy and efficiently manage its limited resources. In short, it must be able to convert invention into combat readiness. This requires an educated officer corps with the intellect and vision to capitalize on evolving technology and developments. The various naval educational institutions discussed in this chapter help to provide the trained and educated professionals required to fill these needs.

REFERENCES

Navy Fact File, 8th ed., Office of Information, Washington, D.C., 1988.

"Paths to a Commission," *All Hands*, Number 863 (February 1989): 42-47.

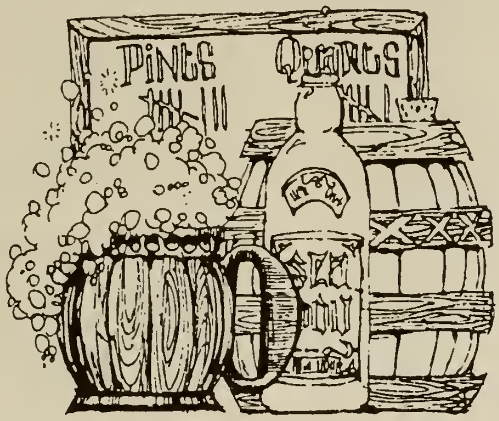
The United States Government Manual 1989/90, Office of the Federal Register, National Archives and Records Administration, Washington, D.C., 1989.

MIND YOUR Ps AND Qs

THERE ARE FEW OF US WHO HAVE NOT AT ONE TIME OR ANOTHER BEEN ADMONISHED TO "MIND OUR Ps AND Qs," OR IN OTHER WORDS, TO BEHAVE OUR BEST. ODDLY ENOUGH, "MIND YOUR Ps AND Qs" HAD NAUTICAL BEGINNINGS AS A METHOD OF KEEPING BOOKS ON THE WATERFRONT.

IN THE DAYS OF SAIL WHEN SAILORS WERE PAID PITTANCE, SEAMEN DRANK THEIR ALE IN TAVERNS WHOSE KEEPERS WERE WILLING TO EXTEND CREDIT UNTIL PAYDAY. SINCE MANY SALTS WERE ILLITERATE, KEEPERS KEPT A TALLY OF PINTS AND QUARTS CONSUMED BY EACH SAILOR ON A CHALKBOARD BEHIND THE BAR. NEXT TO EACH PERSON'S NAME, A MARK WAS MADE UNDER "P" FOR PINT OR "Q" FOR QUART WHENEVER A SEAMAN ORDERED ANOTHER DRAUGHT.

ON PAYDAY, EACH SEAMAN WAS LIABLE FOR EACH MARK NEXT TO HIS NAME, SO HE WAS FORCED TO "MIND HIS Ps AND Qs" OR GET INTO FINANCIAL TROUBLE. TO ENSURE AN ACCURATE COUNT BY UNSCRUPULOUS KEEPERS, SAILORS HAD TO KEEP THEIR WITS AND REMAIN SOMEWHAT SOBER. SOBRIETY USUALLY ENSURED GOOD BEHAVIOR; HENCE, THE MEANING OF "MIND YOUR Ps AND Qs."



CHAPTER 11

THE ARMED FORCES OF THE UNITED STATES

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the authority of the President in using the military to maintain national security.
2. Identify the members and function of the National Security Council.
3. List the three primary provisions of the National Security Act.
4. Identify the key members and the mission of the Department of Defense.
5. Identify the role of the Secretary of Defense.
6. Identify the three elements that make up the TRIAD and the role of the U.S. Navy and U.S. Air Force in support of the TRIAD.
7. Identify the members and functions of the Joint Chiefs of Staff.
8. Describe the difference between a unified command and a specified command.
9. Identify the mission and function of the U.S. Army.
10. Identify the mission and function of the U.S. Air Force.
11. Identify the mission and function of the U.S. Coast Guard.
12. Identify the key members of the Navy Department.
13. Identify the responsibilities of the Chief of Naval Operations.
14. Identify the duties of the master chief petty officer of the Navy.
15. Identify the purpose of the shore establishment.
16. Identify the key members of the operating forces.
17. Identify the administrative and operational chain of command for operating units.
18. Describe the composition of a task force.

SIGNIFICANT DATES

14 Jun. 1775	The American Continental Army (now called the United States Army) is established by the Continental Congress more than a year before the Declaration of Independence.
4 Aug. 1790	The Revenue Marine is established (now called the United States Coast Guard).
18 Sep. 1947	Department of the Air Force is established.

As you will recall from chapter 1, the U.S. Navy constantly prepares to conduct prompt and sustained combat operations at sea in support of U.S. national interests. This preparation is the primary mission of the U.S. Navy as part of the Department of Defense (DOD). Meeting the objectives of this mission requires a well-organized Navy. This chapter presents information on DOD and U.S. Navy organization.

The Navy's authority to act in the interest of security stems from congressional legislation. Congress enacted legislation to ensure the security of the United States. The legislation authorized a Department of Defense, including three military

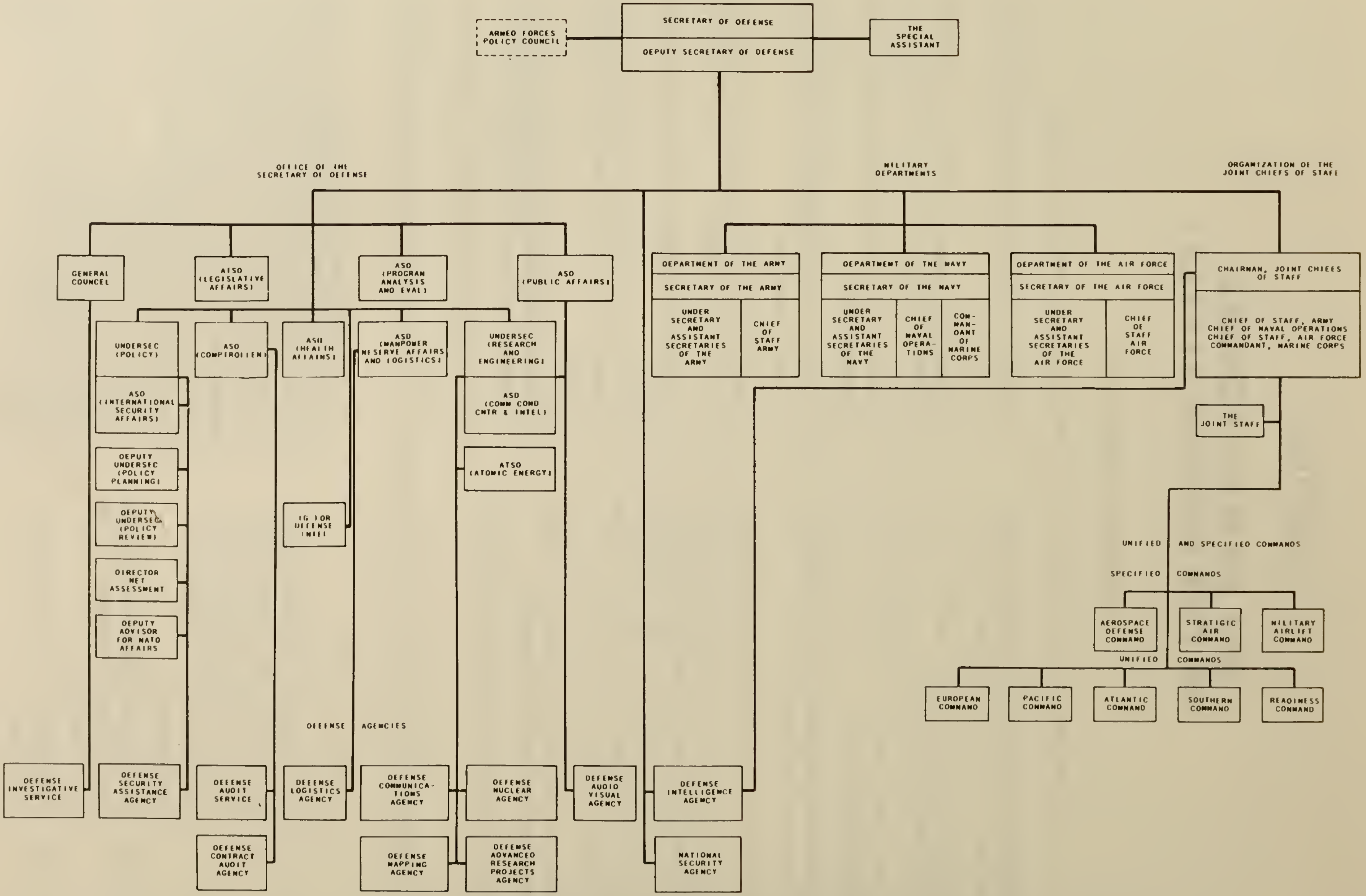

ARMED FORCES POLICY COUNCIL
SECRETARY OF DEFENSE
DEPUTY SECRETARY OF DEFENSE
THE SPECIAL ASSISTANT
OFFICE OF THE SECRETARY OF DEFENSE
MILITARY DEPARTMENTS
ORGANIZATION OF THE JOINT CHIEFS OF STAFF
GENERAL COUNCEL
ATSD (LEGISLATIVE AFFAIRS)
ASD (PROGRAM ANALYSIS AND EVAL)
ASD (PUBLIC AFFAIRS)
UNDERSEC (POLICY)
ASD (COMPTROLLER)
ASD (HEALTH AFFAIRS)
ASD (MANPOWER RESERVE AFFAIRS AND LOGISTICS)
UNDERSEC (RESEARCH AND ENGINEERING)
ASD (INTERNATIONAL SECURITY AFFAIRS)
ASD (COMM COMD CNTR & INTEL)
DEPUTY UNDERSEC (POLICY PLANNING)
ATSD (ATOMIC ENERGY)
DEPUTY UNDERSEC (POLICY REVIEW)
IG FOR DEFENSE INTEL
DIRECTOR NET ASSESSMENT
DEPUTY ADVISOR FOR NATO AFFAIRS
DEPARTMENT OF THE ARMY
SECRETARY OF THE ARMY
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE ARMY
CHIEF OF STAFF ARMY
DEPARTMENT OF THE NAVY
SECRETARY OF THE NAVY
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE NAVY
CHIEF OF NAVAL OPERATIONS
COMMANDANT OF MARINE CORPS
DEPARTMENT OF THE AIR FORCE
SECRETARY OF THE AIR FORCE
UNDER SECRETARY AND ASSISTANT SECRETARIES OF THE AIR FORCE
CHIEF OF STAFF AIR FORCE
CHAIRMAN, JOINT CHIEFS OF STAFF
CHIEF OF STAFF, ARMY
CHIEF OF NAVAL OPERATIONS
CHIEF OF STAFF, AIR FORCE
COMMANDANT, MARINE CORPS
THE JOINT STAFF
UNIFIED AND SPECIFIED COMMANDS
SPECIFIED COMMANDS
AEROSPACE DEFENSE COMMAND
STRATEGIC AIR COMMAND
MILITARY AIRLIFT COMMAND
UNIFIED COMMANDS
EUROPEAN COMMAND
PACIFIC COMMAND
ATLANTIC COMMAND
SOUTHERN COMMAND
READINESS COMMAND
DEFENSE AGENCIES
DEFENSE INVESTIGATIVE SERVICE
DEFENSE SECURITY ASSISTANCE AGENCY
DEFENSE AUDIT SERVICE
DEFENSE CONTRACT AUDIT AGENCY
DEFENSE LOGISTICS AGENCY
DEFENSE COMMUNICATIONS AGENCY
DEFENSE MAPPING AGENCY
DEFENSE NUCLEAR AGENCY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
DEFENSE AUDIO VISUAL AGENCY
DEFENSE INTELLIGENCE AGENCY
NATIONAL SECURITY AGENCY

Figure 11-1.—Organizational chart for the Department of Defense.

departments, each under its own Secretary: Army, Navy (including the Marine Corps), and Air Force. The three Secretaries function under the direction, authority, and control of the Secretary of Defense. See figure 11-1 for the DOD organizational chart.

Congress also created the Joint Chiefs of Staff (JCS) to integrate planning and operations among the armed services. The Chiefs of Staff of the separate services make up the JCS. A chairman, considered to be the senior member of the armed services, heads the JCS.

The legislation also established unified and specified commands. This action unified the strategic direction of the combatant forces into an efficient team of land, naval, and air forces. A unified command consists of significant components of two or more military services. A specified command normally consists of forces from only one service.

As you read this chapter, you will learn more about the DOD, the three military services, the JCS, and unified and specified commands. If you are unfamiliar with these subjects, this will be a good introduction. If you have a good understanding of these subjects, this will serve as a good review.

NATIONAL SECURITY

National security is a matter of concern for all Americans, but no U.S. citizen faces more responsibility than the President of the United States. The National Security Council (NSC), under the President, shares in this responsibility. The NSC sits at the pinnacle of our nation's defense structure.

THE PRESIDENT (COMMANDER IN CHIEF)

The power of the President in the capacity of COMMANDER IN CHIEF OF THE ARMED FORCES is extensive. That power increases in the event of war or some other national emergency. For example, the President may declare an emergency and call out the military Reserves or even order the armed forces into military action before Congress actually declares war. Often a President has referred a matter to Congress after the fact. The following actions are examples:

- In 1801 President Jefferson sent naval squadrons to the Mediterranean and then informed Congress.
- In 1845 President Polk deployed the Navy to the coast of Mexico to quell trouble caused by the annexation of Texas. He asked Congress to declare war on Mexico 5 months later, and Congress did.
- In 1862 President Lincoln personally assumed command of successful military operations against Confederate forces in Norfolk, Virginia.
- In 1896 President McKinley ordered the naval blockade of Cuba. Congress declared war on Spain 3 days later.
- In 1941 President Franklin Roosevelt declared an unlimited national emergency and ordered the U.S. Navy to "sink on sight" foreign submarines found in our "defensive waters."
- In 1962 President Kennedy ordered a naval quarantine of Cuba based on Soviet military activity on that island.
- In 1965 President Johnson ordered naval air action against North Vietnamese gunboats and support facilities.
- In 1979 President Carter ordered units of the U.S. Sixth and Seventh Fleets to the Indian Ocean to assist in hostage evacuation operations and as deterrents against Iranian actions.

These and other less significant actions of our Presidents have established presidential authority and control of U.S. military forces.

NATIONAL SECURITY COUNCIL

The National Security Act of 1947 established the National Security Council. The President chairs the Council.

The statutory members, in addition to the President, consist of the Vice President and the Secretaries of State and Defense. The Chairman of the Joint Chiefs of Staff serves as the statutory military adviser to the Council. The Director of Central Intelligence serves as the intelligence adviser.

The National Security Council advises the President about the integration of domestic, foreign, and military policies relating to national security.

THE DEPARTMENT OF DEFENSE (DOD)

In 1949 Congress amended the National Security Act of 1947 to create the Department of Defense (DOD). In enacting this amendment, Congress set forth the following three primary provisions:

- The establishment of a Department of Defense, including the three Military Departments of the Army, the Navy (including naval aviation and the United States Marine Corps), and the Air Force under the direction, authority, and control of the Secretary of Defense
- The separate organization of each military department under its own Secretary
- The establishment of unified or specified combatant commands and a clear and direct line of command to such commands

We discussed the awesome power of the President of the United States as Commander in Chief earlier in this chapter. The Commander in Chief must be kept abreast of all matters affecting the ability of the Department of Defense to properly defend the United States and its allies.

The Department of Defense is the largest government agency in the United States. It spends a major portion of the national budget and employs nearly 4 million people (military and civilian). The DOD was created to carry out the military policies of the United States.

MISSION

Simply stated, the mission of the DOD is to maintain and employ armed forces to accomplish the following:

- Support and defend the Constitution of the United States against all enemies
- Protect the United States, its possessions, and areas vital to its interests
- Advance the policies and interests of the United States
- Safeguard the internal security of the United States

SECRETARY OF DEFENSE (SECDEF)

The Secretary of Defense (SECDEF) functions as a member of both the President's cabinet and the National Security Council. The Secretary of Defense is delegated all the functions vested in the President regarding the DOD, including powers, duties, and authorities. In this capacity, SECDEF exercises ''direction, authority, and control over the Department of Defense'' and reports to the President on all military matters concerning the department. SECDEF, therefore, serves as the principal assistant to the President in all matters relating to the DOD. The Deputy Secretary of Defense assists SECDEF by supervising and coordinating the activities of the department and substituting for SECDEF during absence or disability.

STRATEGIC NUCLEAR DETERRENCE

The United States uses a TRIAD of three closely related strategic nuclear forces as a deterrent against a potential enemy. These nuclear forces consist of the U.S. Navy's SEA-LAUNCHED BALLISTIC MISSILES and the U.S. Air Force's INTERCONTINENTAL BALLISTIC MISSILES (ICBMs) and LONG-RANGE BOMBERS.

The probability of a strategic nuclear attack on the United States is very low. However, should we ever experience such an attack, the consequences would be catastrophic. The TRIAD has been developed and maintained to deter nuclear attack. Similarly, the Soviet Union has developed and is maintaining powerful strategic forces of its own. Our objective is to obtain a condition of essential equivalence—a condition in which the following situations occur:

1. Soviet strategic nuclear forces do not become effective instruments of political leverage or coercion.
2. Nuclear stability is maintained.
3. Advantages in strategic force characteristics possessed by the Soviets are offset by advantages of the United States in other characteristics.
4. U.S. strategic forces are not, nor are they perceived to be, inferior in performance to those of the Soviet Union.

The credibility of our TRIAD as perceived by potential opponents and allies is *very important.* If they perceive that our TRIAD does not exist or is weak, regardless of the facts, it will no longer serve to deter an attack.

This condition of essential equivalence should produce a mutual deterrence that is so stable it will not be upset in a crisis. The United States seeks to maintain this stability through a combination of specific, equitable, and verifiable arms-control agreements.

The focus on relations between the United States and the Soviet Union is necessary because both nations are the greatest military powers in the world today. For the foreseeable future, the two countries will continue to cooperate and compete. The precise mixture of cooperation and competition will depend on the place, the issue, and how each sees its own national interests in a particular case.

The Soviets appear willing to strike some bargains that can reduce the chances of mutual destruction. At the same time, because their interests and objectives are different from ours, tensions have risen in the past and will continue to do so in the future.

The unique qualities of each leg of the TRIAD combined provide a level of flexibility that could not be attained by each one alone. The TRIAD enhances our employment options, complicates the Soviet's hedge against possible Soviet violations of arms-control limitations, and reduces the impact of new technological advances.

U.S. NAVY'S ROLE

Deterrence of war has been the sole mission of and fundamental reason for the existence of the fleet ballistic missile submarine (SSBN) since its inception in 1960. The SSBN program is the Navy's highest priority. It is an essential cornerstone of the national security policy, functioning as a survivable and dependable leg of the strategic deterrent TRIAD. The submarine leg of the TRIAD consists of older SSBNs armed with Poseidon C-3 or Trident C-4 missiles and new Trident submarines carrying Trident C-4 and D-5 missiles. These submarines spend about 55 percent of their time at sea, with their missiles targeted at sites in the Soviet Union and Eastern Europe. Tridents carry 24 submarine-launched ballistic missiles (SLBMs) compared with 16 in earlier submarines.

U.S. AIR FORCE'S ROLE

Our land-based intercontinental ballistic missiles (ICBMs) are unsurpassed in readiness and immediate reaction capability. They can be launched quickly, and they have a high capability of survival. The Strategic Air Command's (SAC's) ICBM force consists of Minuteman missiles and Titan II missiles, which are being retired. SAC is modernizing its missile forces with new Peacekeeper ICBMs, which are being deployed in Minuteman silos. The Peacekeeper is more accurate, carries more warheads, and places at risk the most difficult Soviet targets.

SAC's manned bombers are the most flexible element of the TRIAD. They are the only leg of the TRIAD that can be recalled and reused. Bombers can be used as a manned penetration or as a cruise missile launch platform. Bombers can also be used in support of conventional operations. SAC can use B-52 and FB-111 bombers to penetrate Soviet defenses. New B-1B bombers (fig. 11-2) are being placed into service to modernize SAC's aging B-52 forces.

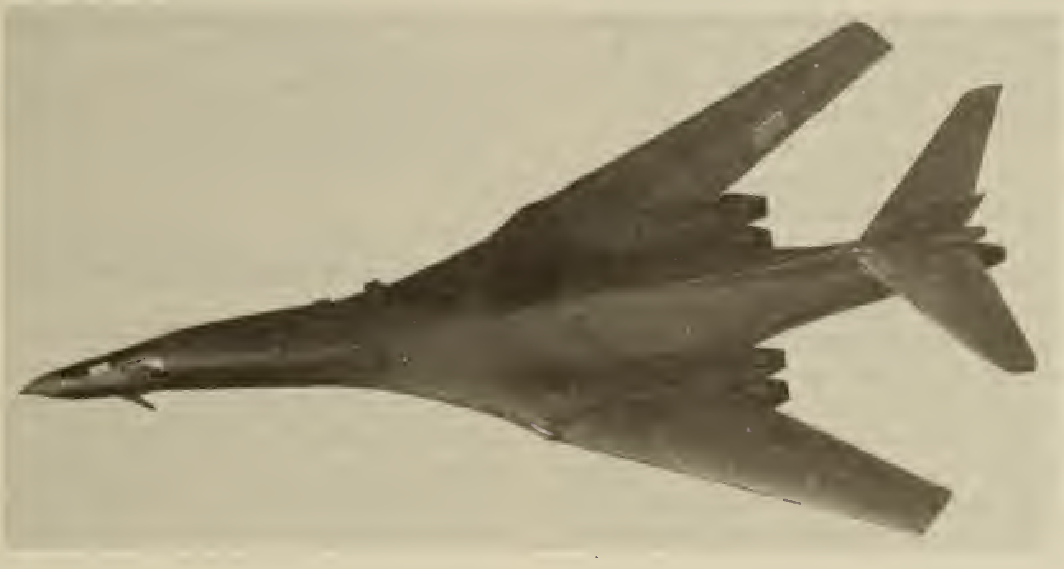


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Figure 11-2.—U.S. Air Force B-1B bomber.

JOINT CHIEFS OF STAFF (JCS)

Before we describe the functions of the Joint Chiefs of Staff (JCS), let's review a little history. The Joint Chiefs of Staff resulted from the establishment of a supreme British-American military body for the strategic direction of World War II. This British-American body of military officers was known as the Combined Chiefs of Staff.

Our own JCS took form from the British Chiefs of Staff, who were colleagues and counterparts of U.S. representatives. The JCS soon began to function as the corporate leadership for the United States military structure. At the national level, the JCS absorbed and extended the functions of the Joint Army and Navy Board. This joint board handled interservice cooperation and joint war planning in the prewar period.

During World War II the JCS existed to assist the President in the exercise of his powers as Commander in Chief. The organization that developed to support the JCS during World War II included a few standing committees composed of full-time working members. However, the majority of committees were manned by officers who served in this JCS function as part-time members. This function was an extension of their primary assignments in the War or Navy Departments.

With few modifications, the wartime JCS organization continued to operate in the postwar period until the effective date of the National Security Act of 1947. This act established the JCS as a permanent agency within the National Military Establishment. It appointed the members as "the principal military advisers to the President and Secretary of Defense."

COMPOSITION

The JCS consists of the Chairman of the Joint Chiefs of Staff; the Chief of Staff, United States Army; the Chief of Naval Operations; the Chief of Staff, United States Air Force; and the Commandant of the Marine Corps.

The President appoints the Chairman, with the advice and consent of the Senate. The Chairman serves at the pleasure of the President for a 2-year term and may be reappointed in the same manner for an additional 2-year term. During time of war, the number of reappointments is unlimited. While holding office, the Chairman of the JCS outranks all other officers of the armed forces. However, the Chairman may not exercise military command over the JCS or any of the armed forces.

One additional member, the Vice Chairman, is appointed in the same manner as the Chairman. The Vice Chairman participates in all meetings of the JCS but may vote only when acting as Chairman.

FUNCTION

The members of the Joint Chiefs of Staff are the principal military advisers to the President, the National Security Council, and the Secretary of Defense. Subject to the authority and direction of the President and SECDEF, the duties of the JCS include the following:

- Preparing strategic plans and providing strategic direction of the armed forces
- Preparing joint logistic plans and assigning logistic responsibilities to the armed forces
- Establishing unified commands
- Reviewing major material and personnel requirements of the armed forces
- Formulating policies for joint training of the armed forces
- Formulating policies for coordinating military education of members of the armed forces
- Providing representation of the United States on the Military Staff Committee of the United Nations
- Performing other duties as the President or SECDEF prescribes

UNIFIED COMMANDS AND SPECIFIED COMMANDS

The United States' concept of the Military Establishment is that it is an efficient team of land, naval, and air forces. This concept is based on the principle of effective use of military power. This principle requires close integration of the efforts of the separate military services. Unity of effort among the services at the national level results from a joint effort. The Secretaries of the Army, Navy, and Air Force; the JCS; and the various military departments work together in this joint effort.

Under the National Security Act, each military department and service must coordinate with the others. Each is responsible for organizing, training, equipping, and providing forces to fulfill certain specific combat functions and for administering and supporting these forces.

Our country must have the full use and exploration of the weapons, techniques, and capabilities of each department and service to attain its national security objectives. Unified commands and specified commands provide us with the ability to combine our forces effectively.

UNIFIED COMMANDS

A unified command has a broad continuing mission and is composed of significant components of two or more services under a single commander. A situation in which either or both of the following criteria apply requires a unified command:

1. A broad continuing mission exists that requires significant forces of two or more services and a single strategic direction.
2. Any combination of the following situations exists when significant forces of two or more services are involved:
   a. A large-scale operation requires positive control and tactical execution by a large and complex force
   b. A large geographic area requires single responsibility for effective coordination of operations
   c. Limited logistic resources require a single point of command

The unified commands include the following:

U.S. European Command (USEUCOM)

U.S. Southern Command (USSOUTHCOM)

U.S. Pacific Command (USPACOM)

U.S. Atlantic Command (USLANTCOM)

U.S. Space Command (USSPACECOM)

U.S. Transportation Command (USTRANSCOM)

U.S. Special Operations Command (USSOCOM)

U.S. Central Command (USCENTCOM)

The authority (the President, Secretary of Defense, etc.) establishing a unified command appoints a unified commander. This authority also determines the unified command's structure and assigns its forces, missions, and general geographic area of responsibility.

The commander of a unified command has a joint staff with members in key positions from each service having component forces under the unified command. The joint staff requires a balance in the composition of the forces and character of the operations. This balance ensures an understanding by the commander of the tactics, techniques, capabilities, needs, and limitations of each component force.

Each component of a unified command is normally commanded directly by an officer of that component. Operational command by a unified commander is usually exercised through the service component commanders or through the commanders of subordinate unified commands. (A unified commander may establish subordinate unified commands.) In exercising operational command, a unified commander regards the knowledge and responsibilities of assigned service component commanders.

The responsibilities of the commander of a unified command include the following:

- Maintaining the security of the command and protecting the United States, its possessions, and its bases against attack or a hostile outbreak

- Carrying out assigned missions, tasks, and responsibilities

- Assigning tasks to and directing coordination among subordinate commands to ensure unity of effort in the accomplishment of assigned mission(s)

SPECIFIED COMMANDS

A specified command is a command with a broad continuing mission. It is normally composed of forces from only one service but may include units and staff representation from other services.

The authority that establishes a specified command appoints the specified commander and the force structure. This authority also assigns the missions and defines the commander's general geographic area of responsibility.

Units of other services assigned to a specified command normally are told the purpose and duration of the assignment. Such assignment, in itself, does not change the specified command to a unified command. If, however, the assignment is major and of long duration, a unified command is normally established instead of a specified command.

The commander of a specified command has the same responsibilities as the commander of a unified command; however, the specified commander cannot establish subordinate unified commands.

The only specified commands in existence at the time of this writing are the Strategic Air Command (SAC) and the U.S. Forces Command (USFORCOM).

DEPARTMENT OF THE ARMY

The primary responsibility of the Department of the Army is to prepare land forces, as necessary, for war. The Department of the Army is also responsible for expansion of peacetime components of the Army to meet the needs of war. The Army includes land combat and service forces and aviation and water transport.

MISSION

The mission of the Department of the Army is to organize, train, and equip active-duty and Reserve forces for the preservation of peace, security, and the defense of our nation. The Army's mission focuses on land operations; its soldiers must be trained with modern arms and equipment and be ready to respond quickly.

FUNCTION

The following are the primary functions of the Department of the Army:

- To organize, train, and equip forces for the conduct of prompt and sustained combat operations on land—specifically, forces to defeat enemy land forces and to seize, occupy, and defend land areas
- To organize, train, equip, and provide Army air defense units as required to defend the United States against air attack
- To organize, train, equip, and provide Army forces, in coordination with the other services, for joint amphibious and airborne operations
- To develop, in coordination with other U.S. military services, doctrines, tactics, techniques, and equipment for amphibious operations
- To organize, train, equip, and provide forces for the support and conduct of special operations
- To develop, in coordination with other U.S. military services, doctrines, procedures, and equipment employed by Army and Marine forces in airborne operations
- To provide forces to occupy territories abroad and establish a military government pending the transfer of this responsibility to other authority
- To perform functions relating to the management and operation of the Panama Canal
- To perform projects for improvement of navigation, flood control, beach erosion control, and other water resource development in the United States, its territories, and its possessions

DEPARTMENT OF THE AIR FORCE

The primary responsibility of the Department of the Air Force is to prepare the Air Force, as necessary, for war. It is also responsible for the expansion of peacetime components of the Air Force to meet the needs of war. The Air Force, within the Department of the Air Force, includes both combat and service aviation forces.

MISSION

The mission of the Air Force is to preserve, in conjunction with the other armed forces, the peace and security of the United States by providing air-combat, air-service, aerospace, missile, and airlift forces.

FUNCTION

The primary functions of the Air Force are as follows:

- To organize, train, and equip Air Force personnel to conduct prompt and sustained combat operations in the air. Specifically, the Air Force defends the United States against air attack. The functions of the Air Force support the doctrines established by the Joint Chiefs of Staff. These doctrines include gaining and maintaining general air supremacy, defeating enemy air forces, controlling vital air areas, and establishing local air superiority.

- To develop doctrines and procedures, in coordination with other U.S. military services, for the unified defense of the United States against air attack.
- To organize, train, and equip Air Force personnel for strategic air warfare.
- To organize, train, and equip Air Force personnel for joint amphibious and airborne operations in coordination with other U.S. military services.
- To furnish close combat and logistical air support to the Army. This air support includes airlift, support, and resupply of airborne operations; aerial photography; tactical reconnaissance; and restraint of enemy land power and communications.
- To provide air transport for the armed forces.
- To develop, in coordination with other U.S. military services, doctrines, procedures, and equipment for air defense from land areas, including the continental United States.
- To formulate doctrines and procedures for organizing, equipping, training, and employing Air Force troops.
- To provide an organization capable of furnishing adequate, timely, and reliable intelligence for the Air Force.
- To furnish aerial photography for cartographic purposes.
- To develop tactics, techniques, and equipment for amphibious operations in coordination with other U.S. military services.
- To develop doctrines, procedures, and equipment employed by Air Force troops in airborne operations with other U.S. military services.
- To restrain enemy sea power through air operations.
- To conduct antisubmarine warfare and protect shipping.
- To conduct aerial minelaying operations.

Air Force responsibilities in support of space operations include the following:

—Organizing, training, equipping, and providing forces to support operations

—Developing, in coordination with other U.S. military services, tactics, techniques, and equipment employed by Air Force personnel for use in space operations

—Conducting individual and unit training of Air Force space operations forces

—Participating with other U.S. military services in joint space operations, training, and exercises

THE UNITED STATES COAST GUARD

The United States Coast Guard has a dual role that is unique among the services. By statute, organization, and operation, the Coast Guard is a military service and a branch of the armed forces always; but normally it operates as a service in the Department of Transportation. In time of war or when the President so directs, it becomes a service in the Navy but continues to perform its normal specialized duties.

The Coast Guard is the nation's oldest continuous seagoing service. Established in 1790 as the United States Revenue Marine (later renamed the Revenue Cutter Service), the service was an arm of the Treasury Department, under then Secretary Alexander Hamilton.

The Revenue Marine was primarily a law enforcement agency. Its responsibility was to collect custom duties from ships entering United States waters.

Although the original role of the service was law enforcement, revenue cutters and crews took part in almost every conflict involving the United States. These involvements established the military readiness of the service.

In the mid-1800s Congress established the U.S. Lifesaving Service, an organization of local stations scattered along the U.S. coast. Shortly after the turn of the century, the Lifesaving Service and the Revenue Cutter Service merged to form the U.S. Coast Guard. This merger provided the Coast Guard with its traditional image—the lifesavers.

In 1939 the Coast Guard joined the Lighthouse Service and assumed the responsibility for establishing and maintaining aids to navigation in U.S. waters. This responsibility has grown to such an extent that today the Coast Guard maintains nearly 50,000 navigational aids, including worldwide electronic navigation systems.

MISSION

The mission of the U.S. Coast Guard is twofold. During peacetime the Coast Guard's modern-day mission is an interesting mixture. Various peacetime roles include the following:

- Enforcement of maritime laws and treaties
- Search and rescue operations
- Enforcement of U.S. drug and contraband laws
- Installation and maintenance of aids to navigation
- Ice-breaking operations that keep commercial vessel traffic moving in domestic waters and support scientific research in the Arctic and Antarctica

As the primary maritime law enforcement agency of the United States, the Coast Guard is responsible for enforcing maritime regulatory laws concerning the following:

- Safety regulations for all U.S. commercial vessels, offshore structures, and recreational boating
- Port safety and security, including ports, harbors, and their approaches
- The movement of vessels in ports and waterways during crisis situations
- Marine environmental protection to prevent and contain spills of oil and other hazardous substances

Because the Coast Guard is a military service—one that has ships, planes, and boats—it also has a military readiness mission. The Coast Guard works closely with the Navy, undergoes regular refresher training for its major cutters, and participates in joint operational exercises.

With the advent of World War II, the Coast Guard assumed the responsibilities of in-port safety and security and commercial vessel safety. The Coast Guard has continued to grow and shoulder additional responsibilities. In the last 30 years, the Coast Guard has acquired responsibilities for polar and domestic ice breaking, cleanup and protection of the marine environment, and recreational boating safety. In 1967 the Coast Guard became part of the newly formed Department of Transportation.

In wartime the U.S. Coast Guard has always served with pride. Today, during a wartime condition, the U.S. Coast Guard would operate directly under the Chief of Naval Operations. It would still have the same mission as it did during World War II, plus added roles. The Coast Guard would assume convoy duties as well as antisubmarine warfare missions. Its cutters are well suited for convoy duties as they have a long cruising range and room for armament.

The air search and rescue section of the Coast Guard would fly rescue missions and would also be used for reconnaissance flights. They also would be used as antisubmarine aircraft. The Coast Guard's mission in wartime would strain its limited assets.

FUNCTION

The primary functions of the Coast Guard are as follows:

- Enforcing all applicable federal laws upon the high seas and in waters that are subject to the jurisdiction of the United States
- Safeguarding against destruction or loss from sabotage or other subversive acts all vessels, harbors, ports, and waterfront facilities in the United States and its territories

- Extending medical aid to crews of vessels at sea, caring for and transporting shipwrecked and destitute persons, and engaging in flood-relief work

- Removing and destroying derelicts, wrecks, and other dangers to navigation, and assisting marine commerce by opening ice-blocked channels and ports

- Investigating marine disasters

- Regulating the transportation of explosives on vessels

- Issuing and enforcing the rules for lights, signals, speed, steering, sailing, passing, anchorage, movement, and towlines of vessels

- Establishing and maintaining marine aids to navigation such as lighthouses, lights, radio beacons, radio direction-finder stations, buoys, and Vessel Traffic Services (VTSs), as required to serve the needs of commerce and of the armed forces

- Conducting surveillance operations for the preservation of marine life and the prevention of environmental pollution

- Conducting operations for drug interdiction

DEPARTMENT OF THE NAVY

The Department of the Navy (fig. 11-3) is made up of the Navy Department (the executive offices); Headquarters, United States Marine Corps; and all operating forces of the Navy and Marine Corps and their Reserve components. It also includes all shore (field) activities, headquarters, forces, bases, installations, and other activities under the control or supervision of the Secretary of the Navy (SECNAV).

Notice, on the left of the figure, that the Department of the Navy is divided into three major sections: the Navy Department, the shore establishment, and the operating forces.

The mission and function of the Navy were described in chapter 1.

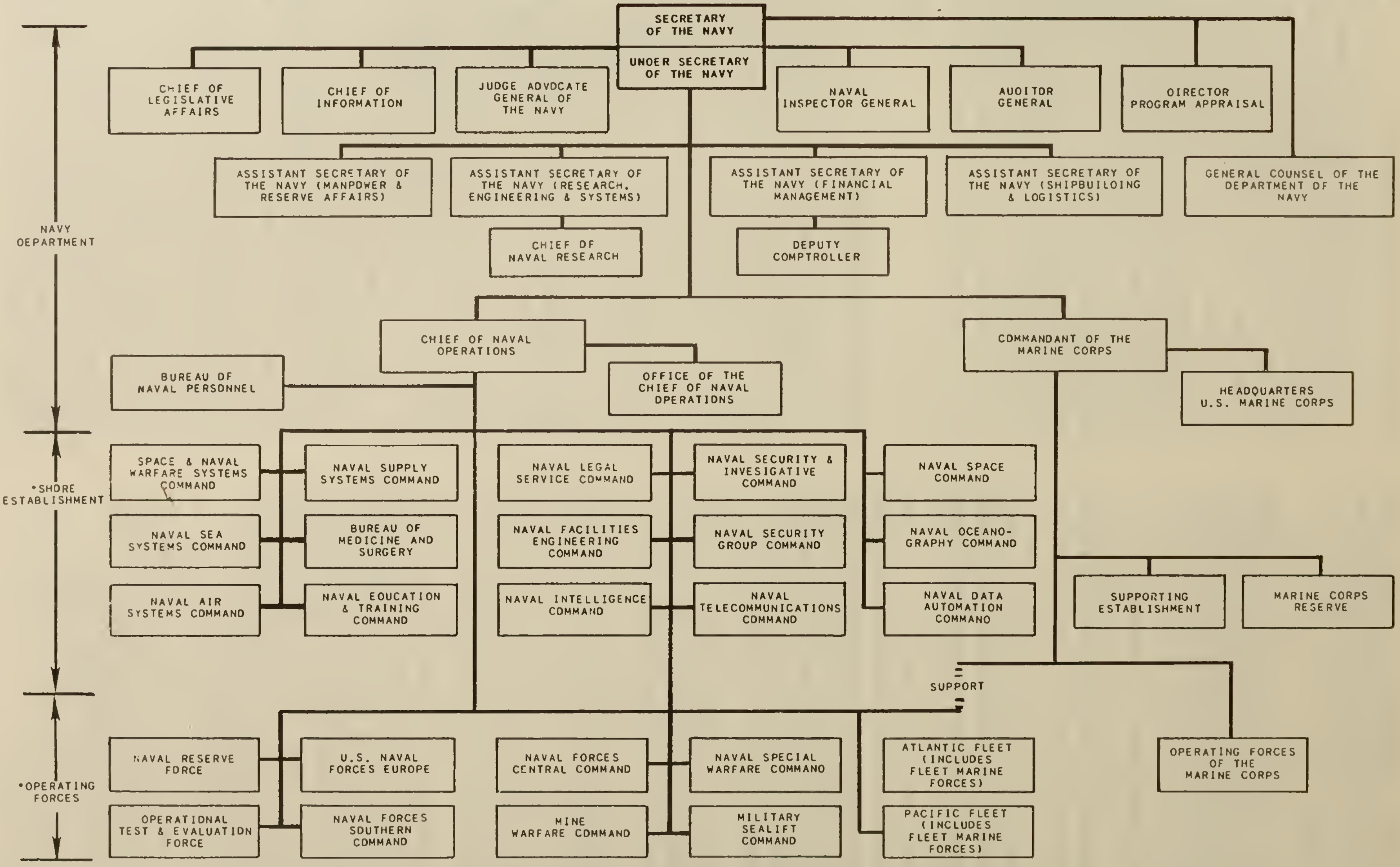
THE NAVY DEPARTMENT

The Navy Department assists the Secretary of the Navy in carrying out the responsibilities of that office. SECNAV is responsible, under the Secretary of Defense, for the policies and control of the Navy. This includes its organization, administration, operation, and efficiency. The Navy Department includes the Undersecretary of the Navy, Assistant Secretaries, the Chief of Naval Operations, the Commandant of the Marine Corps, and the Judge Advocate General. Remember, the Department of the Navy is the entire organization, which includes the Navy Department, the shore establishment, and the operating forces. The Navy Department, which is only one part of the Department of the Navy, is an administrative group that assists SECNAV.

Chief of Naval Operations

The Chief of Naval Operations (CNO) is the senior military officer of the Department of the Navy. The CNO takes precedence over all other officers of the naval service, except an officer of the naval service who is serving as Chairman of the Joint Chiefs of Staff. The CNO is the principal naval adviser to the President and to the Secretary of the Navy on the conduct of the activities of the Department of the Navy. The Chief of Naval Operations is the Navy member of the Joint Chiefs of Staff. The CNO is responsible for keeping the Secretary of the Navy fully informed on matters considered or acted upon by the Joint Chiefs of Staff. As a member of the Joint Chiefs of Staff, the CNO is responsible to the President and the Secretary of Defense for duties external to the Department of the Navy as prescribed by law.

The Chief of Naval Operations, under the direction of the Secretary of the Navy, exercises command over the operating forces of the Navy (consistent with the operational command vested in the commanders of unified or specified combatant commands). These forces include the several fleets, seagoing forces, Fleet Marine Forces, Military Sealift Command, and other forces and activities as may be assigned by the President or SECNAV. The CNO also exercises command over the Bureau of Naval Personnel and such shore activities as may be assigned by the Secretary of the Navy. In addition, the Chief


SECRETARY OF THE NAVY
UNDER SECRETARY OF THE NAVY
CHIEF OF LEGISLATIVE AFFAIRS
CHIEF OF INFORMATION
JUDGE ADVOCATE GENERAL OF THE NAVY
NAVAL INSPECTOR GENERAL
AUDITOR GENERAL
DIRECTOR PROGRAM APPRAISAL
ASSISTANT SECRETARY OF THE NAVY (MANPOWER & RESERVE AFFAIRS)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, ENGINEERING & SYSTEMS)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE NAVY (SHIPBUILDING & LOGISTICS)
GENERAL COUNSEL OF THE DEPARTMENT OF THE NAVY
CHIEF OF NAVAL RESEARCH
DEPUTY COMPTROLLER
NAVY DEPARTMENT
CHIEF OF NAVAL OPERATIONS
COMMANDANT OF THE MARINE CORPS
BUREAU OF NAVAL PERSONNEL
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
HEADQUARTERS U.S. MARINE CORPS
*SHORE ESTABLISHMENT
SPACE & NAVAL WARFARE SYSTEMS COMMAND
NAVAL SUPPLY SYSTEMS COMMAND
NAVAL LEGAL SERVICE COMMAND
NAVAL SECURITY & INVESIGATIVE COMMAND
NAVAL SPACE COMMAND
NAVAL SEA SYSTEMS COMMAND
BUREAU OF MEDICINE AND SURGERY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL SECURITY GROUP COMMAND
NAVAL OCEANOGRAPHY COMMAND
NAVAL AIR SYSTEMS COMMAND
NAVAL EDUCATION & TRAINING COMMAND
NAVAL INTELLIGENCE COMMAND
NAVAL TELECOMMUNICATIONS COMMAND
NAVAL DATA AUTOMATION COMMAND
SUPPORTING ESTABLISHMENT
MARINE CORPS RESERVE
SUPPORT
*OPERATING FORCES
NAVAL RESERVE FORCE
U.S. NAVAL FORCES EUROPE
NAVAL FORCES CENTRAL COMMAND
NAVAL SPECIAL WARFARE COMMAND
ATLANTIC FLEET (INCLUDES FLEET MARINE FORCES)
OPERATING FORCES OF THE MARINE CORPS
OPERATIONAL TEST & EVALUATION FORCE
NAVAL FORCES SOUTHERN COMMAND
MINE WARFARE COMMAND
MILITARY SEALIFT COMMAND
PACIFIC FLEET (INCLUDES FLEET MARINE FORCES)

*ALSO INCLUDES OTHER DESIGNATED ACTIVITIES NOT SHOWN ON THE CHART WHICH ARE UNDER THE COMMAND OF SUPERVISION OF THE ORGANIZATIONS DEPICTED

Figure 11-3.—Organizational chart for the Department of the Navy.

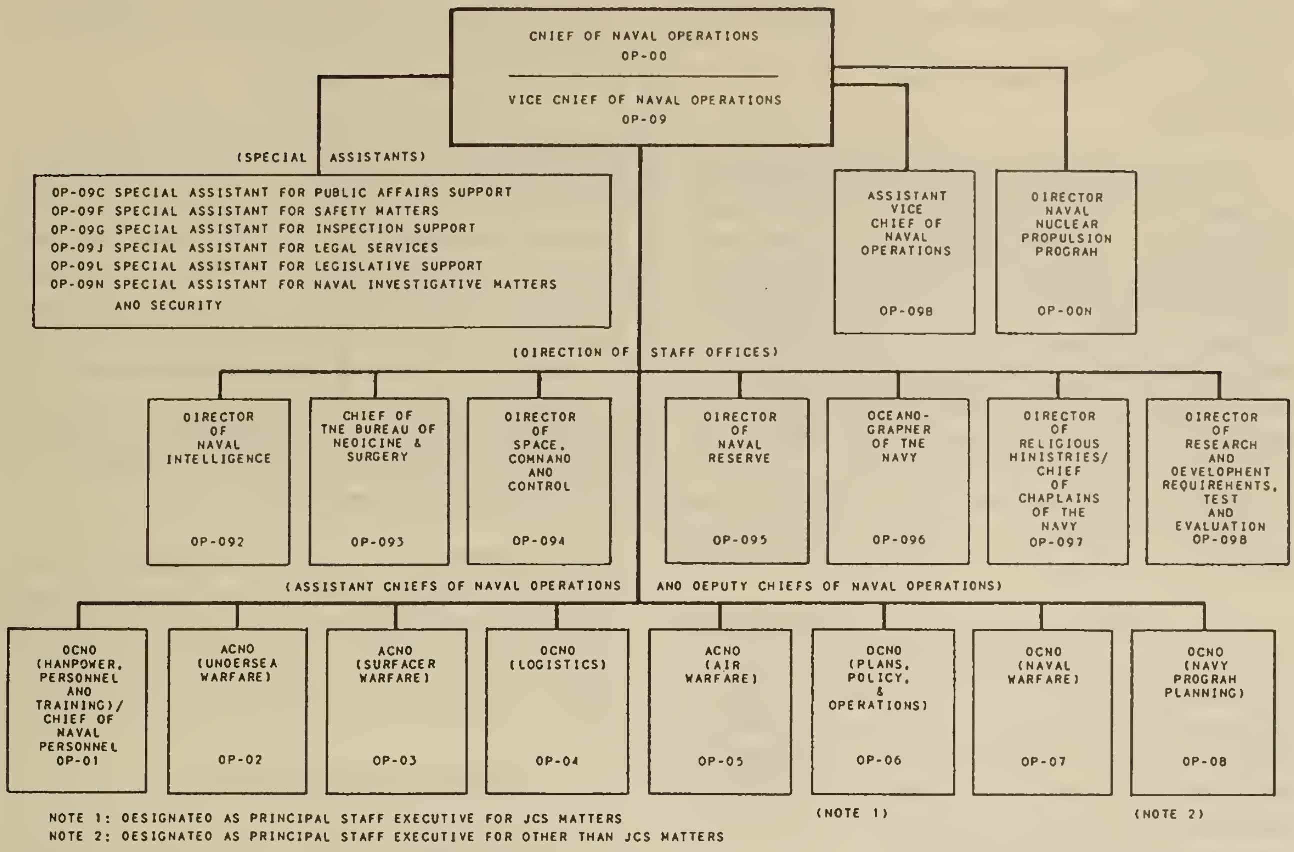

CHIEF OF NAVAL OPERATIONS OP-00
VICE CHIEF OF NAVAL OPERATIONS OP-09
(SPECIAL ASSISTANTS)
OP-09C SPECIAL ASSISTANT FOR PUBLIC AFFAIRS SUPPORT
OP-09F SPECIAL ASSISTANT FOR SAFETY MATTERS
OP-09G SPECIAL ASSISTANT FOR INSPECTION SUPPORT
OP-09J SPECIAL ASSISTANT FOR LEGAL SERVICES
OP-09L SPECIAL ASSISTANT FOR LEGISLATIVE SUPPORT
OP-09N SPECIAL ASSISTANT FOR NAVAL INVESTIGATIVE MATTERS AND SECURITY
ASSISTANT VICE CHIEF OF NAVAL OPERATIONS OP-09B
DIRECTOR NAVAL NUCLEAR PROPULSION PROGRAM OP-00N
(DIRECTION OF STAFF OFFICES)
DIRECTOR OF NAVAL INTELLIGENCE OP-092
CHIEF OF THE BUREAU OF MEDICINE & SURGERY OP-093
DIRECTOR OF SPACE, COMMAND AND CONTROL OP-094
DIRECTOR OF NAVAL RESERVE OP-095
OCEANOGRAPHER OF THE NAVY OP-096
DIRECTOR OF RELIGIOUS MINISTRIES/ CHIEF OF CHAPLAINS OF THE NAVY OP-097
DIRECTOR OF RESEARCH AND DEVELOPMENT REQUIREMENTS, TEST AND EVALUATION OP-098
(ASSISTANT CHIEFS OF NAVAL OPERATIONS AND DEPUTY CHIEFS OF NAVAL OPERATIONS)
DCNO (MANPOWER, PERSONNEL AND TRAINING)/ CHIEF OF NAVAL PERSONNEL OP-01
ACNO (UNDERSEA WARFARE) OP-02
ACNO (SURFACE WARFARE) OP-03
DCNO (LOGISTICS) OP-04
ACNO (AIR WARFARE) OP-05
DCNO (PLANS, POLICY, & OPERATIONS) OP-06
DCNO (NAVAL WARFARE) OP-07
DCNO (NAVY PROGRAM PLANNING) OP-08
(NOTE 1)
(NOTE 2)
NOTE 1: DESIGNATED AS PRINCIPAL STAFF EXECUTIVE FOR JCS MATTERS
NOTE 2: DESIGNATED AS PRINCIPAL STAFF EXECUTIVE FOR OTHER THAN JCS MATTERS

Figure 11-4.—Office of the Chief of Naval Operations.

of Naval Operations has the following specific responsibilities:

- To organize, train, equip, prepare, and maintain the readiness of Navy operational forces
- To determine and direct the efforts necessary to fulfill current and future requirements of the Navy for manpower, material, weapons, facilities, and services
- To exercise leadership in maintaining a high degree of competence among Navy officers and enlisted and civilian personnel
- To maintain the morale and motivation of Navy personnel and the prestige of a Navy career
- To plan and provide health care for personnel of the naval service and their dependents
- To direct the organization, administration, training, and support of the Naval Reserve
- To monitor the Department of the Navy to determine and maintain efficiency, discipline, and readiness
- To determine the need for and to provide for the conduct of research, development, testing, and evaluation that meets long-range objectives, immediate requirements, and fiscal limitations
- To formulate Navy strategic plans and policies and participate in the formulation of joint and combined strategic plans and policies
- To budget for commands and offices assigned to the command of the Chief of Naval Operations and other activities and programs as assigned

As shown in figure 11-4, staff assistants, the Vice CNO and the Vice CNO's assistant, Directors of Major Staff Offices (DMSOs), and Deputy Chiefs of Naval Operations aid the CNO in carrying out these responsibilities. One of the principal assistants and advisers to the CNO is the master chief petty officer of the Navy (MCPON).

The Master Chief Petty Officer of the Navy

The office of the master chief petty officer of the Navy was established upon a recommendation derived from the Secretary of the Navy's task force on Navy/Marine Corps personnel retention in 1966. The function of the office was to provide a direct, unofficial channel of communication between enlisted personnel and the senior policy level of the Department of the Navy. With a tour length established at 4 years, the office was formally established 1 March 1967.

The charter of the master chief petty officer of the Navy outlines the specific duties of the MCPON as follows:

1.The MCPON is assigned to the immediate Office of the Chief of Naval Operations. The MCPON serves as the senior enlisted representative of the Navy and acts as the primary enlisted adviser to the CNO. The MCPON advises the Chief of Naval Personnel in all matters pertaining to both active-duty and retired enlisted members and their dependents.

2. The MCPON serves in an advisory capacity on various boards pertaining to enlisted members, including:

- Board of Managers, Navy Relief Society
- Board of Administrators of the Central Nonappropriated Funds
- Board of Equal Opportunity for Women
- Rating Review Board
- Navy Wives Club of America (Liaison)
- Fleet Reserve Association (Liaison)
- Navy Resale System Advisory Board

3. The MCPON, when called upon, testifies before congressional committees and subcommittees. The MCPON also accompanies the Chief of Naval Operations and the Chief of Naval Personnel on occasional official trips and the Navy Inspector General on selected inspection trips. The MCPON also travels extensively throughout the fleet and serves as the Navy enlisted representative of the Department of the Navy at special events, celebrations, and ceremonies.

4. The MCPON makes recommendations to help develop effective leadership and training at all enlisted levels and to help attain high standards of conduct and general appearance within the enlisted community. The MCPON acts at all times to maintain and promote the chain of command and its associated chain of communications. Further, the MCPON is concerned with existing or potential situations, procedures, and practices that affect the use, morale, retention, career enhancement, human goals programs, and general well-being of the enlisted men and women of the Navy and their dependents.

The MCPON does not work alone. Assisted by a staff, the MCPON relies on the quality and experience of the fleet, force, and command master chiefs. With their solid support, the MCPON carries out the duties of the office.

THE SHORE ESTABLISHMENT

To list and describe every type of shore activity operated by the Navy is beyond the scope of this manual. Primarily, the major shore commands (fig. 11-5) are responsible for training, supplying, maintaining, and supporting the operating forces. They accomplish this through the delivery of materials, services, and personnel to the operating forces. All of the major shore commands answer directly to the Chief of Naval Operations in carrying out their missions.

THE OPERATING FORCES

The operating forces of the Navy are combat or combat-support oriented. Combatant and certain supporting forces are assigned under the commander of a unified or specified command. The operating forces of the Navy (fig. 11-6) include the following:

1. The Pacific and Atlantic fleets, including forces and commands by type as follows:
   a. Fleet Marine Forces
   b. Naval Air Forces
   c. Naval Surface Forces
   d. Submarine Forces
   e. Training Commands

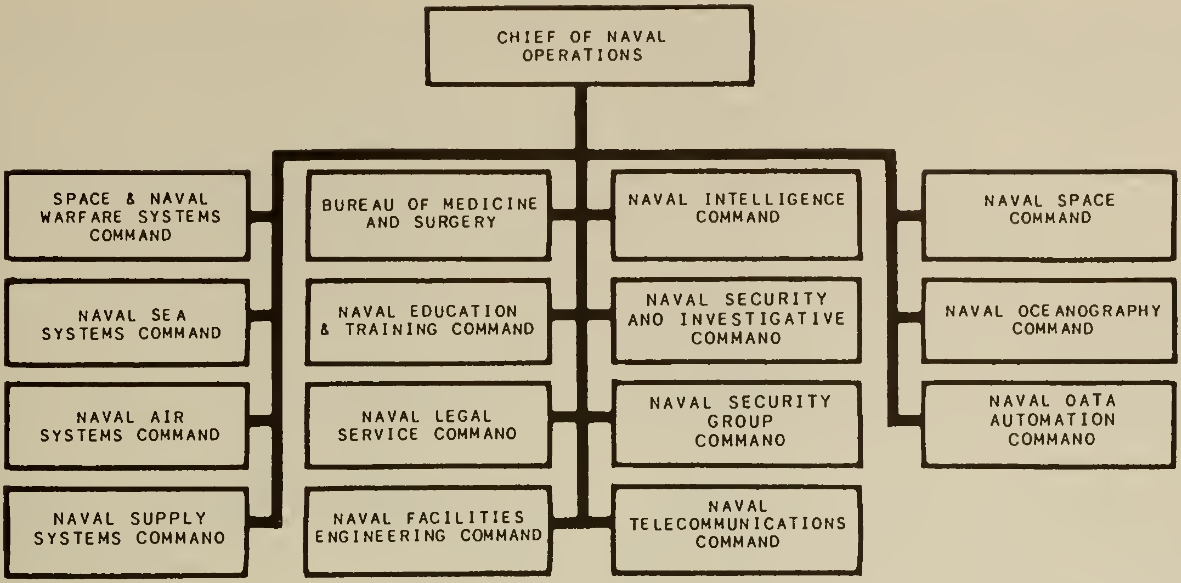

CHIEF OF NAVAL OPERATIONS
SPACE & NAVAL WARFARE SYSTEMS COMMAND
NAVAL SEA SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND
NAVAL SUPPLY SYSTEMS COMMAND
BUREAU OF MEDICINE AND SURGERY
NAVAL EDUCATION & TRAINING COMMAND
NAVAL LEGAL SERVICE COMMAND
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL INTELLIGENCE COMMAND
NAVAL SECURITY AND INVESTIGATIVE COMMAND
NAVAL SECURITY GROUP COMMAND
NAVAL TELECOMMUNICATIONS COMMAND
NAVAL SPACE COMMAND
NAVAL OCEANOGRAPHY COMMAND
NAVAL DATA AUTOMATION COMMAND

Figure 11-5.—The major shore commands.

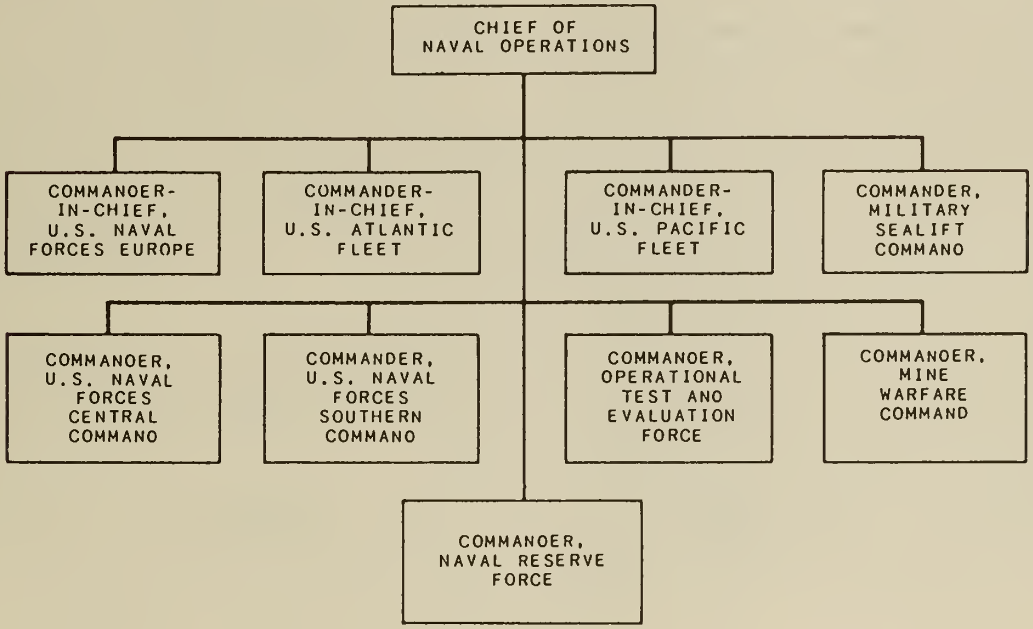

CHIEF OF NAVAL OPERATIONS
COMMANDER-IN-CHIEF, U.S. NAVAL FORCES EUROPE
COMMANDER-IN-CHIEF, U.S. ATLANTIC FLEET
COMMANDER-IN-CHIEF, U.S. PACIFIC FLEET
COMMANDER, MILITARY SEALIFT COMMAND
COMMANDER, U.S. NAVAL FORCES CENTRAL COMMAND
COMMANDER, U.S. NAVAL FORCES SOUTHERN COMMAND
COMMANDER, OPERATIONAL TEST AND EVALUATION FORCE
COMMANDER, MINE WARFARE COMMAND
COMMANDER, NAVAL RESERVE FORCE

Figure 11-6.—Operating forces reporting to the CNO.

2. U.S. Naval Forces Europe
3. Mine Warfare Command
4. Military Sealift Command
5. Operational Test and Evaluation Force
6. Naval Reserve Force
7. U.S. Naval Forces Central Command
8. U.S. Naval Forces Southern Command
9. Shore activities of the Department of the Navy assigned to the operating forces.

The operating forces have two organizational chains of command: a permanent administrative

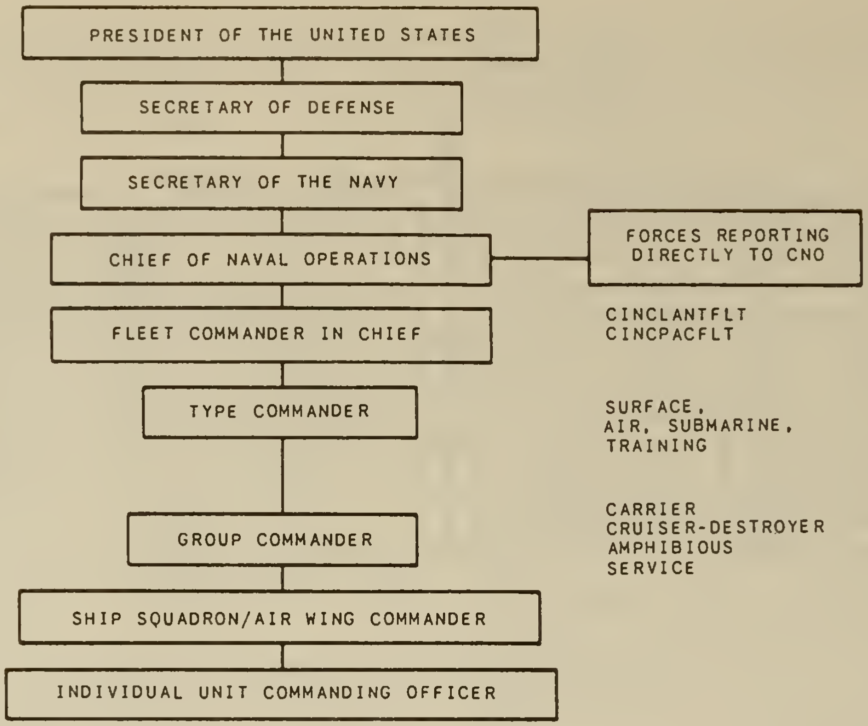
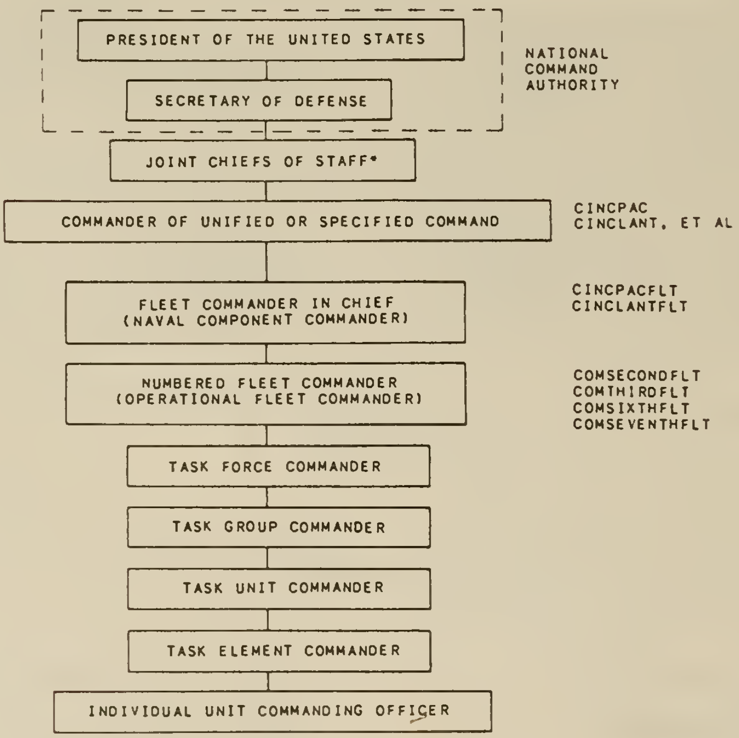

PRESIDENT OF THE UNITED STATES
SECRETARY OF DEFENSE
SECRETARY OF THE NAVY
CHIEF OF NAVAL OPERATIONS
FORCES REPORTING DIRECTLY TO CNO
FLEET COMMANDER IN CHIEF
CINCLANTFLT
CINCPACFLT
TYPE COMMANDER
SURFACE, AIR, SUBMARINE, TRAINING
GROUP COMMANDER
CARRIER
CRUISER-DESTROYER
AMPHIBIOUS
SERVICE
SHIP SQUADRON/AIR WING COMMANDER
INDIVIDUAL UNIT COMMANDING OFFICER

Figure 11-7.—Administrative chain of command for operating units.


PRESIDENT OF THE UNITED STATES
SECRETARY OF DEFENSE
NATIONAL COMMAND AUTHORITY
JOINT CHIEFS OF STAFF*
COMMANDER OF UNIFIED OR SPECIFIED COMMAND
CINCPAC
CINCLANT, ET AL
FLEET COMMANDER IN CHIEF (NAVAL COMPONENT COMMANDER)
CINCPACFLT
CINCLANTFLT
NUMBERED FLEET COMMANDER (OPERATIONAL FLEET COMMANDER)
COMSECONDFLT
COMTHIRDFLT
COMSIXTHFLT
COMSEVENTHFLT
TASK FORCE COMMANDER
TASK GROUP COMMANDER
TASK UNIT COMMANDER
TASK ELEMENT COMMANDER
INDIVIDUAL UNIT COMMANDING OFFICER

NOTE

*THE MEMBERS OF THE JCS ARE OPERATIONAL ADVISERS WITH RESPECT TO THE UNIFIED AND SPECIFIED COMMANDS AND EXERCISE OPERATIONAL COMMAND OR CONTROL OF FORCES, ONLY WHEN DIRECTED BY THE PRESIDENT OR SECRETARY OF DEFENSE.

Figure 11-8.—Operational chain of command.

chain and a task-oriented operational chain that can be structured to meet particular requirements. Fleet organization can be illustrated by these chains, as shown in figures 11-7 and 11-8. For an example, a destroyer may administratively belong to a squadron (DESRON) that is part of a cruiser-destroyer group (CRUDESGRU), which, in turn, is part of the surface force (SURFLANT) that reports to the Commander in Chief, Atlantic Fleet (CINCLANTFLT). Operationally the same destroyer may be deployed as part of a task element, unit, group, and force that is part of the Seventh Fleet answering to the Commander in Chief, Pacific Fleet (CINCPACFLT).

A task force is a subdivision of a fleet composed of several types of ships according to operational necessity. Thus, a task force may include battleships, aircraft carriers, cruisers, amphibious craft, and auxiliary vessels such as tenders or supply ships. When a fleet is large enough and its duties are extensive enough to require division into many task forces, the task forces are usually grouped into task fleets. A task force (TF) is divided into task groups (TGs). Task groups are assigned numbers corresponding to the particular task force of which they are a part. For instance, TF 77 may have a task group assigned to reconnaissance, and its designated number will be TG 77.3. Task groups may be even further subdivided into task units (TUs) and task elements (TEs). For example: TU 77.3.1 is Task Unit 1 of Task Group 3 of Task Force 7 of the Seventh Fleet.

Fleet Marine Forces are type commands under the administrative control of the Commandant of the Marine Corps. These forces operate under the respective fleet commander in chief as do other type commands.

The Military Sealift Command, operated by the Navy for all armed services, consists of ships, tankers, and commercial vessels manned by civil service and contract personnel. The prime mission of the Military Sealift Command is to provide immediate sealift capability in an emergency. These ships transport service personnel, their dependents, combat troops, and material throughout the world.

A shore activity may be placed under the command of the operating forces if it is outside the jurisdiction of an area coordinator or if it provides support only to units of operating forces. Some of the activities so assigned include naval air facilities, communication facilities, naval and submarine bases, ship repair facilities, naval repair facilities, and supply depots.

The operating forces are responsible for naval operations necessary to carry out the department's role in upholding and advancing the national policies and interests of the United States.

SUMMARY

Organization is not a new concept. In its simplest form, organization is the orderly arrangement of assets. As a naval officer, you must understand the organization of our Navy.

Our Constitution authorized the building and support of our Navy as well as the Army. The Constitution also stated that the President of the United States would be the commander in chief of the Army and Navy. You have read the examples of Presidential acts that exemplify the power of the commander in chief.

In 1949 the National Security Act (NSA) was amended, thus establishing the Department of Defense as we know it today. This act established the position of Secretary of Defense and gave the position presidential cabinet rank. The NSA also established the Joint Chiefs of Staff (JCS). The Joint Chiefs of Staff are the top individuals from each service who advise the Secretary of Defense and the President on all military matters. The naval representative is the Chief of Naval Operations (CNO). The CNO is a member of the Department of the Navy (DON), and so are you.

The Department of the Navy is composed of three major parts: the Navy Department, the shore establishment, and the operating forces.

From this chapter, you can follow the chain of command from your activity to the commander in chief. You can also see how the other branches of the military fit into this chain, as well as their mission and functions, thus covering the basic defense structure of our nation.

REFERENCES

Military Requirements for Petty Officer First Class, NAVEDTRA 12046, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1991.

Military Requirements for Petty Officer Second Class, NAVEDTRA 12045, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1991.

Military Requirements for Petty Officer Third Class, NAVEDTRA 12044, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1991.

Military Requirements for Senior and Master Chief Petty Officer, NAVEDTRA 12048, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1991.

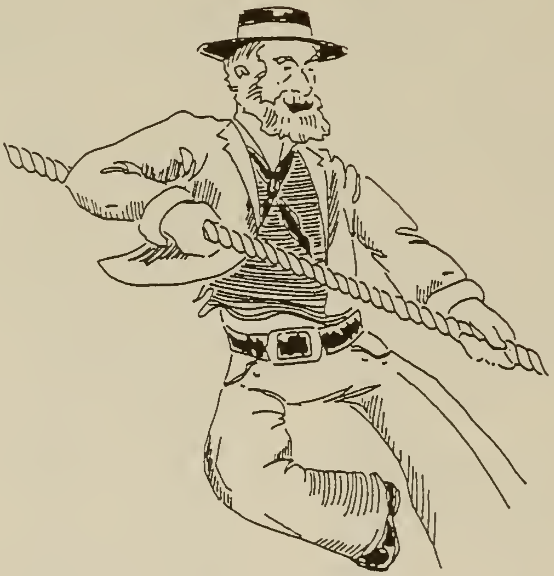
United States Department of Defense, *Functions of the Department of Defense and Its Major Components*, DoD Directive 5100.1, Office of the Secretary of Defense, Washington, D.C., 1987.

The United States Government Manual 1989/90, Office of the Federal Register, National Archives and Records Administration, Washington, D.C., 1989.

SUGGESTED READING

Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

U.S. Department of Defense, *The Armed Forces Officer*, DoD GEN-36A, American Forces Information Services, Washington, D.C., 1988.



SEA CHANTIES

SEA CHANTIES WERE SONGS SUNG IN THE DAYS OF SAIL BY CREWS AS THEY WORKED AT HEAVING THE LINES OR TURNING THE CAPSTAN. THE SONGS' RHYTHMS CAUSED EVERYONE TO PUSH OR PULL SIMULTANEOUSLY, HENCE CAUSING A CONCERTED EFFORT AND BETTER RESULTS. SOME BELIEVE THE TERM IS A DERIVATION OF THE FRENCH WORD "CHANTER" WHICH MEANS "TO SING." OTHERS MAINTAIN THE SPELLING SHOULD BE "SHANTIES," CLAIMING THE NAME REFERS TO THE SHANTIES ALONG THE MOBILE, ALA. WATERFRONT WHERE MANY OF THE TUNES WERE LEARNED BY SAILORS.

WHATEVER THE ORIGIN, CHANTIES WERE DIVIDED INTO THREE DISTINCT CLASSES. SHORT-DRAG CHANTIES, USED WHEN A FEW STRONG PULLS WERE NEEDED; LONG-DRAG CHANTIES, LONGER SONGS TO SPEED THE WORK OF LONG-HAUL JOBS; AND HEAVING CHANTIES, USED FOR JOBS REQURING CONTINUOUS ACTION SUCH AS TURNING THE CAPSTAN. ONE MAN, THE CHANTY-MAN, STOOD HIGH ABOVE THE WORKING CREW AND SANG THE MAIN LINES WHILE THE REST OF THE CREW ADDED THEIR VOICES STRONGLY ON THE SECOND LINE. ON THE LAST WORD, A COMBINED PULL MADE THE ROPES "COME HOME."

A GOOD CHANTY-MAN WAS HIGHLY PRIZED BY OFFICERS AND CREW ALIKE. ALTHOUGH HE HAD NO OFFICIAL TITLE OR RATE, HE WAS USUALLY RELIEVED OF ALL DUTIES TO COMPOSE NEW VERSES FOR SEA CHANTIES.

CHAPTER 12

COMPONENTS OF THE NAVY

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the basic parts of fixed-wing and rotary-wing aircraft.
2. Describe the method of identification of various types of naval aircraft.
3. Identify the various aircraft used by the Navy.
4. Describe the planning and conduct of an air strike.
5. Describe the capabilities and the Navy's use of surface action groups.
6. Explain the Navy's role in fire support missions.
7. Explain the role of combat air patrol aircraft in antiair warfare.
8. Describe the capabilities of Navy ships to counter enemy missiles.
9. Identify the roles of surface ships, aircraft, and submarines in antisubmarine warfare.
10. Describe the shipboard antisubmarine warfare organization.
11. Describe how sonar is used in the detection of submarines.
12. Identify the phases of an amphibious operation.
13. Identify the methods of communication used by the Navy.

Essential to the Navy in the performance of its mission are various components and warfare areas. In this chapter, we discuss some of these components and warfare areas and some of the organizations that assist in their planning and operations. We discuss other branches or elements of the Navy that also provide support to these components and warfare areas in other chapters.

NAVAL AVIATION

SIGNIFICANT DATES

4 Mar. 1911	Congress provides $25,000 to develop aviation for naval purposes.
8 May 1911	Navy orders first airplane.
20 Jan. 1914	Navy establishes first school for naval air training in Pensacola, Florida.
26 Oct. 1922	First carrier landing occurs on a ship underway aboard USS Langley. First catapult launch from an aircraft carrier occurs 1 month later.
28 Nov. 1929	LCDR Richard E. Byrd makes first flight over South Pole; becomes the first pilot to fly over both Poles.
23 Jul. 1947	First delivery of a "pure-jet" fighter, the FJ-1 Phantom, to a Navy squadron takes place.
9 Apr. 1959	Under Project Mercury, the astronaut program selects four naval aviators among seven persons as prospective astronauts.

The history of naval aviation goes back to the turn of the century when an Army-Navy board studied designs for the Langley "flying machine." Afterward, members of the board agreed that aircraft could be developed for use in warfare.

The first naval officer selected for flight training was Lieutenant T. G. Ellyson. In December 1910 Ellyson received orders to undergo instruction with Glenn Curtiss, producer of the first practical hydroplane. Curtiss also trained the pilot who made the first shipboard takeoff from USS *Birmingham* in 1910—Eugene Ely. Ely later made the first successful aircraft landing on the deck of a ship, the armored cruiser *Pennsylvania*.

In July 1911 the Navy received its first airplanes—a Wright landplane for training and a Curtiss hydroplane. The next year Lieutenant Ellyson proved the feasibility of the newly devised compressed-air catapult by flying a plane shot from a barge.

From that time until the present, the Navy has tried four distinct approaches to integrating aeronautics with the fleet. It has used carriers, flying boats, lighter-than-air craft, and pontoon aircraft that operated from noncarrier ships. Using these approaches has taken naval aviation through two eras. During the first era propeller-driven combat aircraft flew from small, straight-deck carriers while pontoon planes operated from large men-o-war. Great flying boats flew antisubmarine warfare (ASW) patrols and were serviced by seaplane tenders, and huge rigid and nonrigid lighter-than-air craft roamed the skies. The second era exists today. This era of modern naval aviation consists of jet-powered aircraft; giant carriers; helicopters; and large, long-range patrol planes. During both of these eras, naval aviation has enjoyed success.

Soon after the attack on Pearl Harbor on 7 December 1941, American carriers dispelled any doubts about the effectiveness of shipboard aviation. Carriers that fortunately were absent from the scene that fateful morning delivered forceful retaliatory blows on enemy installations in the Pacific.

Naval aviation has come a long way since its beginning in 1910. As naval aircraft have become increasingly more advanced over the years, they have been used in many ways. Today's naval aircraft fall under one of two categories: fixed wing or rotary wing.

FIXED-WING AIRCRAFT

A fixed-wing aircraft may be divided into three basic parts: fuselage, wings, and empennage.

The fuselage is the main body of the aircraft, containing the cockpit and, if there is one, the cabin. On virtually all naval fighter and attack aircraft operational today, engines are mounted within the fuselage, as are some of the fuel tanks.

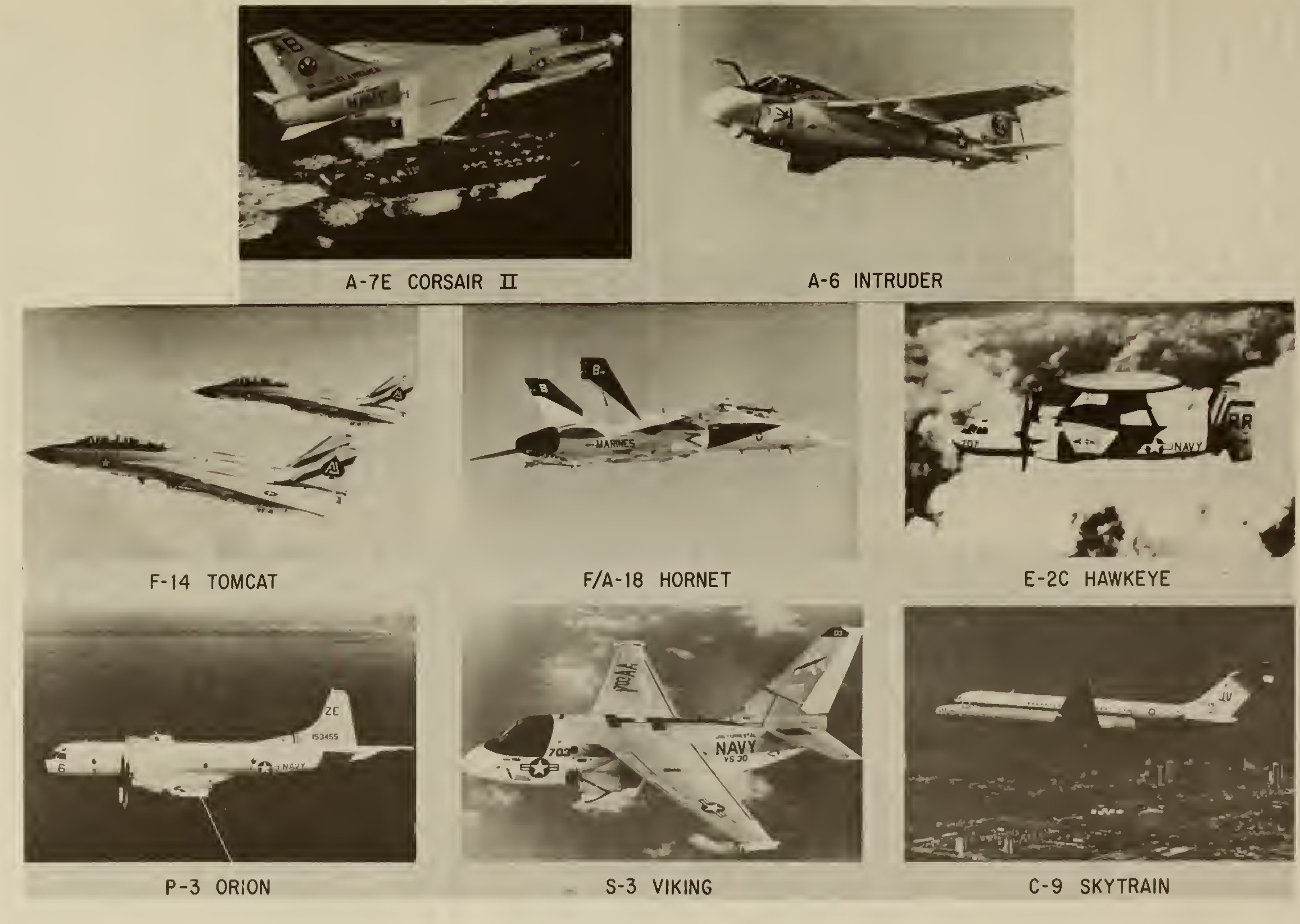
Wings are the primary lifting devices of an aircraft, although the fuselage and tail provide some lift. Several devices located on the trailing (rear) edge of the wings help control the aircraft. Flaps give extra lift on takeoff and slow the aircraft in flight or landing. Ailerons control the roll, or bank, of the aircraft. Trim tabs aerodynamically unload the control surfaces to relieve some of the pilot's work.

Auxiliary lifting devices, resembling flaps, located on the leading (front) edge of the wing increase the camber (curvature) of the wing for added lift on takeoff.

Most Navy jet aircraft carry their bomb loads on pylons (called stations) under the wings and, in some cases, under the fuselage. Some jets have missile stations on the sides of the fuselage. Fuel cells are fitted inside the wings; additional tanks are fitted on the outside of the wings for extra range. Larger jets may have their engines slung beneath the wings in pods. On some low-wing aircraft, the main landing gear retracts into the wings while the nose wheel retracts into the fuselage. On most high-wing aircraft, such as the A-7, all gears retract into the fuselage.

The empennage consists of the stabilizing fins mounted on the tail section of the fuselage. The vertical stabilizer, upon which is generally mounted the rudder, controls yaw (the direction of the nose about the vertical axis). The horizontal stabilizer, on the trailing edge of which are the elevators, determines the pitch (climb or dive). Some supersonic aircraft may have a full delta wing. These aircraft have no horizontal stabilizer, and their elevators and ailerons are combined into control surfaces called elevons. In aircraft with internally mounted jet engines, exhausts are normally located in the tail. High-performance jets have afterburners that give additional thrust at the cost of greatly increased fuel consumption.

Rudder, ailerons, and elevators are collectively grouped as control surfaces. The ailerons and elevators are controlled by the "stick" or a similar device in the cockpit. The rudder is controlled by foot pedals. On high-performance aircraft, aerodynamic pressures on these surfaces become too great for a pilot to overcome manually; hence, all high-speed models today have power-assisted controls. Figure 12-1 shows representative types of fixed-wing aircraft.



A-7E CORSAIR II

A-6 INTRUDER

F-14 TOMCAT

F/A-18 HORNET

E-2C HAWKEYE

P-3 ORION

S-3 VIKING

C-9 SKYTRAIN

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Figure 12-1.—Representative types of fixed-wing aircraft.

Fighter Class

Fighters are high-performance aircraft generally employed to gain air superiority. They may be deployed defensively as interceptors, offensively as escorts for bombers or during ground support missions, or independently to counter enemy aircraft. Some are capable of carrying sufficient payloads for collateral bombing missions.

F-14A TOMCAT.—The F-14A Tomcat is a supersonic, twin-engine, variable-sweeping wing, two-place fighter. It replaced the venerable F-4 Phantom II series of fleet air defense fighters (the last one of which was phased out in 1986). It can track up to 24 targets simultaneously with its advanced AWG-9 weapons control system. It can attack six targets with Phoenix (AIM-54A) missiles, while continuing to scan the airspace. Its armament also includes a mix of other air intercept missiles, rockets, and bombs. F-14s provided air cover for the joint strike on Libyan terrorist-related targets in 1986.

The F-14 is the world's foremost all-weather, day-night fleet air defense fighter. The F-14A was introduced in the mid-1970s. The upgraded F-14A+ version, with its new GE F-110 engines, is now widespread throughout the fleet. It is more than a match for threat fighters in the close-in, air combat arena. The follow-on F-14D is designed to close emerging gaps in the carrier battle group's outer air capability against new-generation Soviet bombers and cruise missiles.

F/A-18 HORNET.—The single-seat F/A-18 Hornet is the nation's first strike fighter. It was designed for traditional strike applications, such as interdiction and close air support, without compromising its fighter capabilities. With its excellent fighter and self-defense capabilities, the F/A-18 concurrently increases strike mission survivability and supplements the F-14 Tomcat in fleet air defense. It thus acts as a true force multiplier, providing operational commanders the flexibility to employ it in either its fighter or its attack role.

F/A-18s can operate both from aircraft carriers and ground bases. They were part of the two-carrier battle force that conducted a joint strike on selected Libyan terrorist-related targets in 1986. They provided fleet air defense and, together with carrier-based A-7 Corsairs, used antiradiation missiles to neutralize air defenses.

Attack Class

Although attack planes are used for low-level bombing, ground support, or nuclear strikes, they do not need the speed of fighters. They have good stability, can carry heavy payloads, and can carry enough fuel to remain on station long enough to render extended support to troops, if needed. Attack aircraft normally operate under conditions of good visibility, but the A-6 has the equipment needed for all-weather and night attacks.

A-6E INTRUDER.—The A-6E is an all-weather, two-seat, subsonic, carrier-based attack aircraft. It is equipped with a microminiaturized digital computer; a solid-state weapons release system; and a single, integrated track and search radar. The target recognition attack multisensor (TRAM) version of the A-6E was introduced to the fleet in 1979. It is equipped with a chin turret containing a forward-looking infrared (FLIR) system and a laser designator and receiver.

The A-6E again proved it is the best all-weather precision bomber in the world in the joint strike on Libyan terrorist-related targets in 1986. With Air Force FB-111s, A-6E Intruders penetrated the sophisticated Libyan air defense systems. Since the Libyan air defense system had been alerted by the high level of diplomatic tension and by rumors of impending attacks, it was ready to retaliate. Although the strike force had to evade over 100 guided missiles while flying at low levels in complete darkness, it delivered laser-guided and other types of ordnance on target.

A-7E CORSAIR II.—The A-7E Corsair II is the current fleet version of the A-7. After more than two decades of service, however, it is due to be replaced by the F/A-18 Hornet. The A-7E has a 20-mm gun, can carry payloads of up to 15,000 pounds of bombs and missiles, and has eight ordnance stations.

A-7E Corsair IIs were part of the two-carrier battle group that conducted a joint strike on selected Libyan terrorist-related targets in 1986. Together with carrier-based F/A-18s, A-7s used antiradiation missiles to neutralize Libyan air defenses.

F/A-18s are scheduled to replace A-7Es in the carrier air wings. The last two A-7E squadrons are scheduled to make the transition in fiscal year 1992.

AV-8B HARRIER.—The AV-8B is a single-engine, single-crew-member aircraft capable of vertical/short takeoff and landing (V/STOL) operations. Operated by the U.S. Marine Corps, it was designed to be highly responsive to the needs of ground forces for close air support. Its V/STOL capability enables it to operate from relatively unprepared sites close to the action, thus increasing its sortie rate. It also can operate from U.S. Navy amphibious assault ships. The AV-8B is built primarily by McDonnell Aircraft Company, a division of McDonnell-Douglas Corporation, with major contributions by British Aerospace. The predecessor to the AV-8B, the British Aerospace's AV-8C, was introduced to the U.S. Marine Corps in 1969. The British version of the aircraft saw a great deal of action during the 1982 Falklands War.

Other Fixed-Wing Aircraft

The Navy uses different aircraft in various roles, ranging from early warning to submarine patrol. Some of these aircraft are discussed in the following paragraphs.

E-2C HAWKEYE.—The E-2C Hawkeye is the U.S. Navy's all-weather, carrier-based tactical airborne warning and control system platform. An integral component of the carrier air wing, the E-2C carries three primary sensors: radar, identification friend or foe (IFF), and a passive detection system. These sensors are integrated with a general-purpose computer. This computer enables the E-2C to provide early warning, threat analyses, and control of counteraction against air and surface targets. The E-2C incorporates the latest solid-state electronics.

F-14 Tomcat fighters provided combat air patrol during the two-carrier battle group joint strike against terrorist-related Libyan targets in 1986. The carrier-based E-2C Hawkeye directed the F-14 Tomcat fighters during the strike and during the crisis periods preceding and following the strike. E-2Cs and Aegis cruisers, working together, provided total air mass superiority over the American fleet. American aircraft intercepted 153 Libyan air force attempts to overfly the U.S. fleet, intercept the U.S. fighter combat air patrol, or gather intelligence information. Not once did a Libyan aircraft get into firing position before a U.S. aircraft or Aegis platform missile locked it into its sight.

E-2 aircraft also have worked effectively with U.S. law enforcement agencies in drug interdiction operations.

The E-2C replaces the E-2B, an earlier version. E-2C aircraft entered U.S. Navy service in November 1973.

EA-6B PROWLER.—The EA-6B Prowler is a four-seat derivative of the highly successful A-6 Intruder medium attack aircraft. Among its features are a computer-controlled electronic surveillance and control system and high-power jamming transmitters in various frequency bands. The jamming transmitters are contained in pods mounted externally on the five aircraft pylons. Aircraft capabilities can be varied throughout the frequency spectrum by varying the mix of jamming transmitters on the aircraft.

EA-6B Prowlers played an important role in the joint strike on Libyan terrorist-related targets in 1986. Working with Air Force EF-111 Ravens, Navy and Marine Corps Prowlers jammed Libyan air defense surveillance. That enabled carrier-launched Navy A-6E Intruders and land-based Air Force FB-111s to put their ordnance on target.

An EA-6B improved-capability (ICAP II) aircraft modernization program is underway to upgrade the entire EA-6B inventory. The first ICAP II-equipped EA-6B squadron provided flawless coverage for the joint USS *Saratoga* and Carrier Air Wing 17 HARM missile strike against Libya. ICAP II includes an inertial navigation system, the universal exciter jamming pod, updated displays, and the ability to interface with computerized mission planning systems. It provides the latest equipment to meet current and projected threats.

P-3C ORION.—The P-3C is a land-based, long-range antisubmarine warfare (ASW) patrol aircraft. It has advanced submarine detection sensors such as the directional frequency and ranging (DIFAR) sonobuoys and magnetic anomaly detection (MAD) equipment. The avionics system is integrated with a general-purpose digital computer. This computerized system supports all of the tactical displays and monitors and automatically launches ordnance, while providing flight information to the pilots. In addition, the system coordinates navigation information and accepts sensor data inputs for tactical display and storage. The P-3C can carry a mixed payload of weapons internally and on wing pylons.

S-3A VIKING.—The S-3A Viking is a carrier-based, subsonic, all-weather, long-range, high-endurance, turbofan-powered aircraft. It can locate and destroy enemy submarines, including newer high-speed, deep-submergence, quiet-running submarines. The S-3A operates primarily in the middle and outer carrier battle group anti-submarine warfare (ASW) zones with other ASW units—surface, airborne, and subsurface. It also can operate independently or in tandem with its long-range, land-based ASW partner, the P-3 Orion. Weapons carried by the S-3A include various combinations of torpedoes, depth charges, missiles, rockets, and special weapons.

ROTARY-WING AIRCRAFT

The aerodynamics of rotary-wing aircraft are considerably more complex than those of fixed-wing aircraft. A helicopter essentially consists of a fuselage, a main rotor or rotors, and often a tail rotor. The fuselage, as in fixed-wing craft, contains the cockpit and cabin.

The main rotor is the approximate equivalent of the wing of a fixed-wing aircraft; each rotor blade is an airfoil, like a wing. The rotation of the main rotor assembly creates a flow of air over the blades that generates lift. The aerodynamic forces on the rotor lift the helicopter into the air; it is not pushed up by the downwash. Some helicopters have twin rotors in tandem at either end of the fuselage. Most have a single, main rotor with a tail rotor mounted at right angles. A few have tandem intermeshing rotors.

The tail rotor (on helicopters that have one) provides directional control and stability. It is mounted at right angles to the main rotor to counteract the torque of that system. By varying the pitch of the tail rotor blades, the pilot controls yaw. By effectively tilting the entire main rotor, the pilot determines the pitch and roll. By simultaneously increasing the pitch on all blades on the main rotor, the pilot causes the helicopter to climb. (The pitch is essentially how large a bite of air the blades take, as distinct from aircraft pitch.)

A transmission, which may be disengaged, connects the helicopter engines to the rotor shaft(s). That permits operation of the engine(s) on the ground without engagement of the rotor system and a mode of flight known as autorotation. If the engines should stop while in flight, the pilot can disengage the transmission; the freewheeling action of the rotor will then allow a slower descent.

Since World War II, rotary-wing aircraft have become an indispensable part of naval warfare. Their applications seem limitless—ASW; pilot rescue; transfer of supplies, mail, and personnel within dispersed forces; amphibious warfare; evacuation of wounded; counterinsurgency; minesweeping; and others. Representative types are shown in figure 12-2.

SH-2F Seasprite

The Seasprite is a ship-based antisubmarine warfare (ASW) and antiship surveillance and targeting (ASST) helicopter. The SH-2F is equipped with a search radar, electronic support measures, magnetic anomaly detectors, and an acoustic data link. The helicopter also carries active and passive sonobuoys.

The prototype Seasprite flew for the first time in 1959. Since then, many versions have been produced for the Navy under its light airborne multipurpose system (LAMPS) program to provide helicopters for ASW and ASST operations.

SH-3H Sea King

The SH-3H is a twin-engine, all-weather, ship-based ASW helicopter. It is equipped with variable depth sonar, sonobuoys, data link, chaff, and a tactical navigation system.

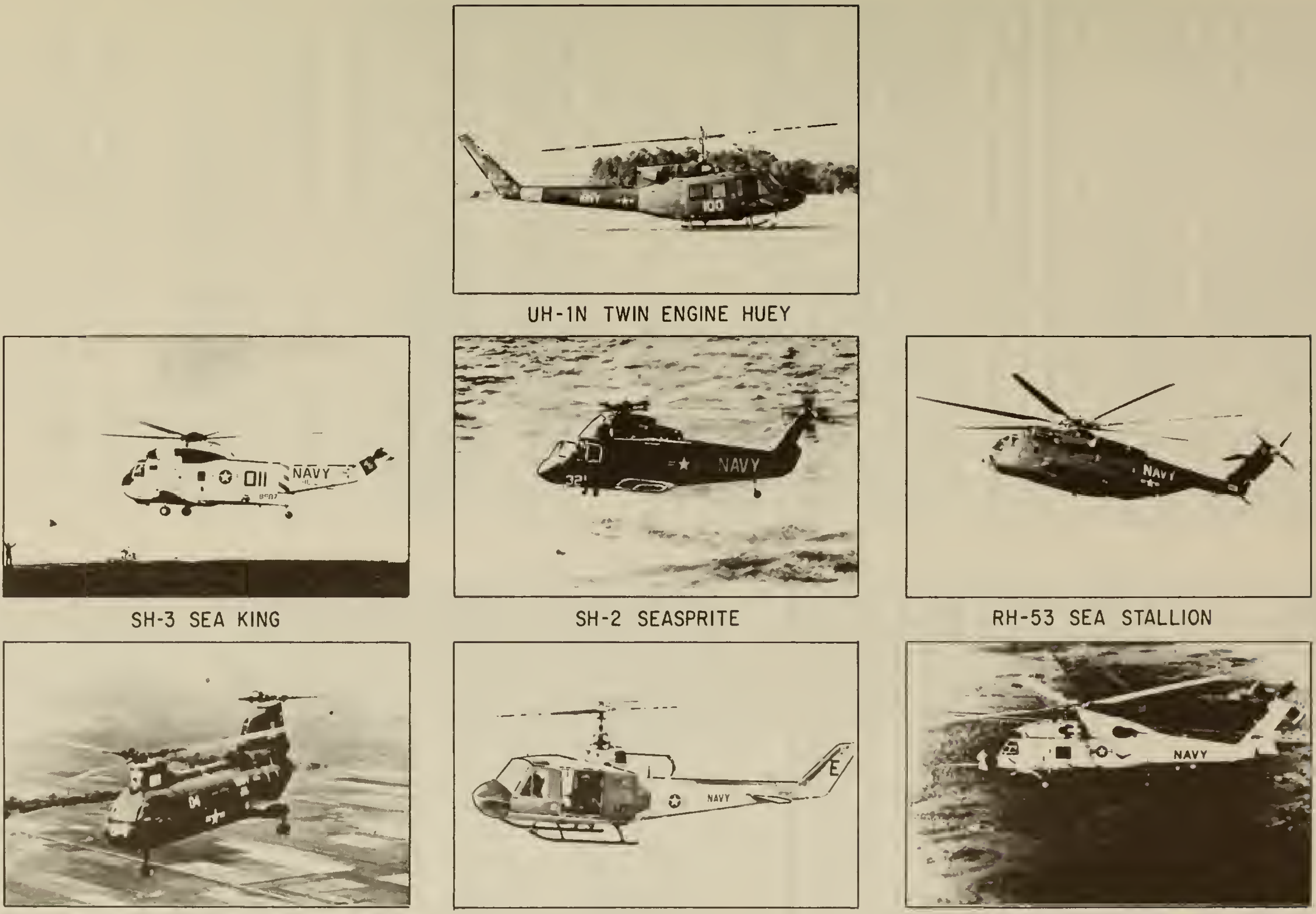
The first version of this workhorse ASW helicopter was flown more than 20 years ago. The current model is equipped with sonar, active and passive sonar buoys, and magnetic anomaly detection equipment.

The Sea King, also used by some squadrons for search and rescue missions, is being replaced by the SH-60F Seahawk.

UH-46/CH-46 Sea Knight

The Sea Knight is another example of a durable and versatile aircraft that still provides valuable service more than two decades after its first flight. Both the Navy and the Marine Corps have flown various versions of it. The Navy has used the UH/CH-46 for vertical replenishment, and the Marine Corps has used the CH-46 for troop transport. Both the Navy and Marine Corps have used the CH-46 for search and rescue (SAR).

The Sea Knight can carry approximately 6,000 pounds of cargo in a sling beneath the fuselage. The CH-46E has been modified with much more powerful engines than earlier Navy and Marine Corps versions.



UH-1N TWIN ENGINE HUEY

SH-3 SEA KING

SH-2 SEASPRITE

RH-53 SEA STALLION

CH-46 SEA KNIGHT

TH-1L HUEY

SH-60B SEAHAWK

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Figure 12-2.—Representative types of naval helicopters.

CH-53A/D Sea Stallion

The CH-53A/D assault/heavy-lift helicopter prototype first flew in 1964. A Navy aerial minesweeping version, the RH-53D, is basically a CH-53A/D with upgraded engines and special minesweeping gear.

CH-53E Super Stallion

The CH-53E Super Stallion is a shipboard-compatible helicopter. It is configured for the lift and movement of cargo and troops/passengers internally and the lift of heavy, oversized equipment externally. The Navy uses this aircraft for six missions: vertical onboard delivery (VOD) augmentation, transfer of damaged aircraft, mobile construction support, high-priority container transportation, nuclear weapons transportation, and airborne mine countermeasures (AMCM). The Marine Corps also uses the CH-53 for certain missions. They include tactical movement of heavy weapons and equipment, amphibious assault operations, recovery of downed aircraft (to include self-retrieval), V/STOL support, and special operations.

The great lifting capacity of the CH-53 makes it capable of lifting some of the Marine Corps' heavier weapons systems. It can lift systems such as the M-198 Howitzer and the different variants of the new light armored vehicle (LAV). Because of this lift capacity, the CH-53 provides greater assault capability.

The range payload capability of the Super Stallion gives it the ability to perform special operations in support of the rapid deployment force.

The MH-53E Sea Dragon is a multimission variant of the CH-53E and has significantly enhanced AMCM capability over the current Navy RH-53D helicopter. The AMCM improvements enhance the aircraft's capability to perform utility and special missions by significantly increasing range and navigation capability. The combined nomenclature designation of both aircraft is the CH/MH-53E.

Weighing 73,500 pounds, the CH/MH-53E is the largest helicopter in the western world. Its lift capacity provides increased military capabilities. It can deliver an external cargo of 16 tons within a 50-nautical-mile radius and can make a VOD of 9.8 tons within a 500-nautical-mile radius. These ranges can be further extended through in-flight refueling with KC-130s and helicopter in-flight refueling (HIR) with air-capable ships.

SH-60B Seahawk

The SH-60B Seahawk is the air subsystem of the LAMPS Mk III weapons system. LAMPS Mk III is a computer-integrated ship/helicopter system that increases the effectiveness of surface combatants. It does that by providing a remote platform for deployment of sonobuoys and torpedoes and an elevated platform for radar and electronic support measures. It also increases effectiveness by processing magnetic anomaly detector sensor information.

SH-60B Seahawk helicopters provided communications relay and visual surveillance services during the two-carrier battle group joint strike on selected terrorist-related Libyan targets in 1986.

The new SH-60F, designed to operate from carriers, is replacing the SH-3H as the carrier battle group inner antisubmarine warfare zone helicopter. It employs a new, longer-range active dipping sonar in addition to sonobuoys to track and attack submarines. Also incorporated are significant improvements in reliability and maintainability, plus vastly improved tactical capabilities.

AIRCRAFT MODEL DESIGNATIONS

All aircraft have tri-service designations. A given aircraft bears the same alphanumeric identification symbol regardless of whether the Navy, Army, or Air Force uses the craft.

Each basic designator consists of a letter and a number. The letter specifies the basic mission of the aircraft as follows:

A—Attack

B—Bomber

C—Cargo/transport

E—Special electronic installation

F—Fighter

H—Helicopter

K—Tanker

O—Observation

R—Reconnaissance

S—Antisubmarine

T—Trainer

U—Utility

V—VTOL or STOL (vertical or short takeoff and landing capability)

X—Research

The number (which may consist of one, two, or three digits) indicates the design number of the type of aircraft. The designator A-7 shows an aircraft to be the seventh attack design. If a particular design is modified, another letter (A, B, C, etc.) follows the design number; this letter identifies the number of the modification. For example, the second A in A-6A tells us that the original design of this attack plane has been modified one time.

When the original mission of an aircraft changes, a mission-modification letter precedes the basic mission symbol. These are as follows:

A —Attack

C —Cargo/transport

D —Director (for control of drones)

E —Special electronic installation

H—Search and rescue

K —Tanker

L —Cold weather

M—Missile carrier

Q —Drone

R —Reconnaissance

S —Antisubmarine

T —Trainer

U —Utility

V —Staff

W—Weather

Thus, if the A-4 is modified to be used as a training aircraft, its alphanumeric identification becomes TA-4.

Other letters that frequently appear before a basic mission symbol or mission-modification letter are "special-use" symbols that indicate the special status of an aircraft. Currently, six special-use symbols are used:

G—Permanently grounded (for ground training)

J —Special test, temporary (when tests are complete, the craft will be restored to its original design)

N—Special test, permanent

X—Experimental stage of development

Y—Prototype (for design testing)

Z—Early stages of planning or development

STRIKING FORCE

A strike is an attack that is intended to inflict damage to, seize, or destroy an objective. A striking force is a force composed of appropriate units needed to conduct strike, attack, or assault operations.

Because of their mobility and versatile power, naval striking forces are ideal instruments for enforcing national military policy and settling outbreaks of hostilities. In peacetime, the existence of a naval striking force may serve as a stabilizing influence to inhibit the outbreak of hostilities.

If hostilities should occur in spite of attempts to settle international disputes by other means, the naval striking force is available immediately. It will take prompt and decisive action to accomplish national objectives.

Mobility is one of the greatest assets of naval striking forces. It makes surprise attacks possible from any point on the periphery of an enemy land area bounded by navigable waters. The versatility of a striking force permits the use of a wide variety of weapons systems from either distant or close ranges.

AIR STRIKES

An air strike is an attempt by a group of aircraft to inflict damage on an enemy target.

Before an air strike is made against targets ashore, the strike planners will formulate and consider a plan of attack. First they meet in the carrier intelligence center (CVIC) to view all of the information the air intelligence officer makes available to them. They use the latest technology available in the planning of their missions. One system they use is the tactical air mission planning system (TAMPS). It automatically performs most of the more tedious planning steps strike planners previously did manually.

Once the plan is complete, all pilots who will take part in the actual strike attend a detailed briefing. The briefing covers all known information that might contribute to the success of the mission. It includes enemy strength; location or probable location of the enemy; recovery of "safe" areas; weather conditions; location of friendly forces; and, if possible, target priorities. The method of delivering the attacks and the weapons selected depends on several elements. They include the construction of the target, whether the tactical situation calls for a day or night attack, and the weather conditions at the target.

The three classes of modern tactical air-to-surface weapons are standoff outside area defense (SOAD), standoff outside point defense (SOPD), and close-in (CI) weapons. The range at which each specific weapon can be used most efficiently determines its classification. We can assume that the longer a weapon's range, the ''smarter'' it has to be; the ''smarter'' it is, the more expensive (and more accurate) it becomes. Therefore, strike planners must efficiently plan how to employ their weapons supplies to avoid running out of them before they can win the war!

Since weapons have become more and more expensive, those responsible for purchasing them have made a recent effort to make more efficient purchases. Classifying weapons as mentioned in the previous paragraph is one way they accomplish that because it reduces the number of different types available. In addition, it makes everyone's job easier because fewer types of weapons must be stored aboard ship and loaded aboard aircraft.

While planning a strike against enemy forces, battle group commanders must remember to plan for the defense of their own ships. The air defense of a carrier battle group is formidable, built on a ''defense-in-depth'' philosophy. Fighter aircraft carrying air-to-air weapons serve as the carrier air wing's contribution to fleet air defense. Tanker aircraft from the air wing refuel the fighters. The fighters, coordinated by ship or airborne controllers, will either be airborne or on the carrier's catapults ready for an immediate launch, depending on the tactical situation.

SURFACE ACTION GROUPS (SAG'S)

The operation orders of a task force or group commanders provide for surface action groups (SAGs) that can perform certain missions. These missions include antisubmarine warfare (ASW), antisurface warfare (ASUW), and strike warfare, to name a few. A battle plan is prepared for these forces on the assumption that they will encounter surface action. However, such a force is usually only one element of a coordinated strike by both air, subsurface, and surface units.

Surface action in the modern Navy means much more than exchange of naval gunfire. The introduction of antiship cruise missiles, such as the Harpoon and the Tomahawk antiship missile (TASM), has revolutionized war at sea.

A coordinated strike against an enemy SAG may well include surface-, sub-, and air-launched Harpoon missiles; surface- and sub-launched TASMs; and air-launched ordnance. Forces may require the use of one or more of these weapons systems in addition to traditional naval gunfire to sink disabled enemy hulks. A coordinated air and cruise-missile strike may surprise an enemy SAG so much that it may cause one of two results. First, the surface action may become a pursuit of disorganized enemy forces. Second, the strike may slow enemy forces so that they cannot bring their own surface missile systems to bear upon the carrier or other essential units in the battle group.

Special situations may require SAGs to destroy isolated or crippled enemy surface units, execute a deep land strike, conduct naval gunfire shore bombardment, and perform surface reconnaissance missions. Today's modern surface force can take on all these missions with or without accompanying tactical air support.

The deployment of Tomahawk land attack missiles (TLAMs) has turned both surface ships and submarines into potent strike platforms. These strike platforms can be widely dispersed throughout the battle group.

The ability to conduct covert strikes from submarines brings a new dimension to naval warfare. Future development will bring land attack cruise missiles with even longer attack ranges. We need these missiles to further disperse surface forces and still conduct strike warfare while minimizing the involvement of the carrier air wing.

FIRE SUPPORT

Although often considered a phase of amphibious operations, surface forces may be called upon to provide gunfire support for troops ashore. During World War II that was accomplished primarily by a force of battleships, cruisers, and destroyers. These forces spent hours, and even days, bombarding the enemy ashore to try to destroy as many fortifications as possible before troops hit the beaches. After the landings, ships provided support as tactical circumstances dictated. Since the enemy showed less opposition to landings during the Korean and Vietnam wars, forces mainly provided fire support in response to tactical circumstances.

As you may recall, USS *New Jersey*, along with other surface ships, took part in fire-support missions in Beirut, Lebanon, in 1983.

ANTIAIR WARFARE

Antiair warfare (AAW) includes all measures designed to nullify or reduce the effectiveness of attack by hostile aircraft or guided missiles.

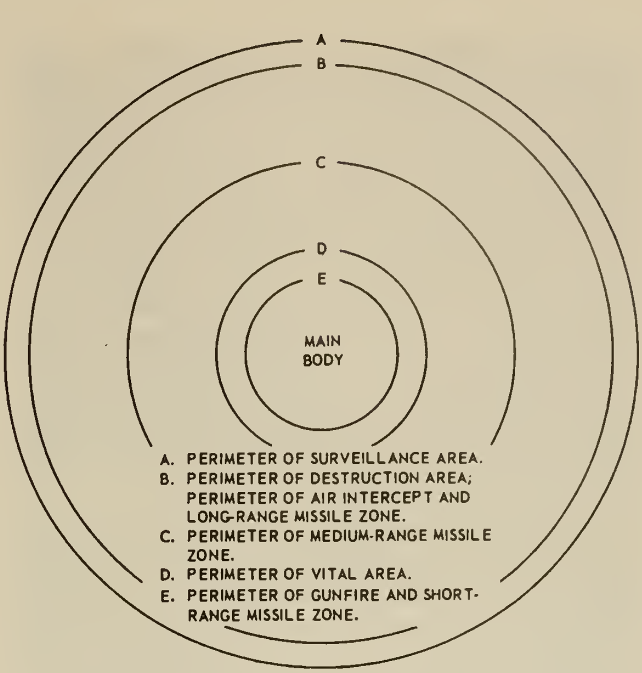
Active AAW includes the use of aircraft, antiaircraft guns, missiles, and electronic countermeasures. (Electronic countermeasures are employed to jam radars, mask or monitor electronic transmissions, confuse guidance systems, present false targets, and the like.) Passive AAW—measures other than active, taken to minimize the effects of hostile air action—involves elements such as cover, concealment, and dispersion.

Ships and aircraft are joined in a task formation to accomplish a mission that has been dictated by strategic necessity. An AAW formation is designed to protect a carrier, which is the offensive striking unit of a carrier task force or battle group.

As enemy aircraft approach in a strike against our ships at sea, our forces may divide defensive AAW operations into three phases occurring successively. The first phase involves the use of personnel and equipment to search for, find, evaluate, and report the enemy attack force. The second phase involves initial active AAW defense measures—taken while attacking aircraft are at a considerable distance from the force. These measures may include electronic deception; aircraft interception; and long-range, surface-to-air, guided-missile fire. The third phase, close-range defense, takes place when attacking aircraft have penetrated near or within gun range of the main body of ships being defended. Close-range defense measures consist of gunfire, short-range missiles, and evasive maneuvering.

Speeds of modern aircraft and missiles require that defensive measures be taken as early as possible at the greatest practicable distance from the attacking force. An AAW operation, therefore, uses distant early warning aircraft, such as the E-2, and surface picket ships, such as guided-missile destroyers. Depending on the size of the formation and nature of the threat, several sector antiair warfare coordinators (SAAWCs) may conduct operations in designated areas. SAAWCs report to the force antiair warfare coordinator (FAAWC) who then coordinates defenses over the entire task force area of responsibility.

The FAAWC normally determines the extent of the antiair warfare area, which encompasses the total region to be protected from enemy air attack. Figure 12-3 maps the subdivisions of the AAW area. Concentric circles surround the main body of ships at distances determined by the nature of the expected attack. The circles represent the outer perimeters of the subdivisions. The surveillance area, the outer limit of which corresponds to the perimeter of the entire AAW area, is the region of search, detection, and tracking. The destruction area is the sector (within the surveillance area) in which destruction or defeat of the enemy airborne threat should occur. It is divided into an air-intercept and long-range missile zone, medium-range missile zone, and gunfire/short-range missile zone. The vital area contains the main force of ships that must be defended.


A
B
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MAIN BODY
A. PERIMETER OF SURVEILLANCE AREA.
B. PERIMETER OF DESTRUCTION AREA; PERIMETER OF AIR INTERCEPT AND LONG-RANGE MISSILE ZONE.
C. PERIMETER OF MEDIUM-RANGE MISSILE ZONE.
D. PERIMETER OF VITAL AREA.
E. PERIMETER OF GUNFIRE AND SHORT-RANGE MISSILE ZONE.

Figure 12-3.—The force antiair warfare coordinator (FAAWC) determines the extent of the AAW area.

The AAW area usually is oriented about an AAW axis, or threat axis. The AAW axis is a true bearing from the vital area to the most probable direction of enemy attack. Early warning aircraft and ships normally are deployed along the AAW axis. A number of factors affect the choice of an AAW disposition. These include the submarine threat, available ships and aircraft, fuel, amount of protection required, and weather. Whenever possible, mutual support from nearby units is obtained through the overlapping of AAW areas.

Although conventional gunfire can be effective in AAW, high-speed jet aircraft have made defense by gunfire a last-ditch effort. At 600 miles per hour, an attacking aircraft is within effective range of a 5-inch gun for less than a minute before the plane reaches its drop point. This speed allows, at best, about 100 rounds of gunfire from one ship. In World War II we expended an average of 3,000 rounds of all types to down each propeller-driven aircraft.

Defense against an air attack demands a high degree of coordination between widely dispersed units in the formation. Attacking aircraft can climb to very high altitudes, or they can come in just over the wave tops. No matter what their altitude, the speed of the aircraft is often supersonic. That means instantaneous reactions and quickly computed solutions are essential to the defenders. Even after attaining maximum proficiency, a ship's individual efforts would probably prove futile unless it were deployed in a defense-in-depth formation. Defense in depth requires intensive coordination. Teamwork is then the order of the day, and the captain of the team is the AAW coordinator.

The AAW coordinator and staff usually observe the entire picture on various display plots aboard a missile cruiser. The coordinator maintains communications, except during some conditions of electronic silence, with all the AAW units. The coordinator also receives all "bogey" (unfriendly air contact) information from the detecting ship or aircraft.

COMBAT AIR PATROL (CAP)

When an aircraft poses a definite threat, the AAW coordinator must decide which defense to use. The first line of defense is the on-station combat air patrol (CAP). If the CAP is in the target area, the relative speeds of the CAP and target may indicate a possible intercept. In such cases, the coordinator may order the AAW unit's CAP air controller (aircraft or surface ship) to vector the CAP to the target. On-station CAP aircraft orbit at a station between the inner and intermediate surface picket lines, roughly 30 miles from their controlling units.

CAP can miss the target for several reasons. Patrolling aircraft may be out of position, relative speeds may work against an intercept, or poor visibility and/or radar reception may make the CAP useless. When CAP proves ineffective, the AAW coordinator may employ long-range missiles or launch additional interceptor aircraft.

During CAP intercept attempts, shipboard weapons direction systems direct fire control radars aboard missile ships to the target. When a ship is ready to engage a target with missiles, it notifies the AAW coordinator and may order one or more missile launches. If more than one ship is prepared to assault a target with missiles, the AAW coordinator must decide which ship, or ships, will take part in the attack. The coordinator must consider, among other factors, which ship is in the best position for a kill and what type and number of missiles it has aboard.

Missile ships may be stationed in the extended (outer), intermediate, or inner screen position. However, they should remain either far enough in or out to allow the CAP to operate freely. Since a missile ship usually is free to fire on any target that enters its envelope, a well-defined crossover point must be designated. A crossover point is the range at which a target ceases to be an air intercept target and becomes a surface-to-air missile target. Air controllers must be careful to keep CAP aircraft from crossing this point to prevent their destruction by friendly fire.

If CAP aircraft or long-range missiles do not stop an attack, the AAW coordinator may direct the carrier(s) to launch additional interceptor aircraft. Interceptors remain ready for launch in specified conditions of readiness as follows:

- Condition One CAP: Pilots strapped in cockpits; catapult and deck crews at stations; and all leads to engines plugged, ready for immediate ignition. Reaction time limited only to the time required to turn the carrier into the wind.
- Condition Two CAP: Aircraft ready to start; pilots and deck/catapult crews nearby rather than on station.
- Condition Three CAP: Launch capability required within 15 minutes. Pilots in ready rooms; crews relaxing near stations.
- Condition Four CAP: Pilots and crews on 30 minutes' notice.
- Condition Five CAP: Pilots and crews free until called.

ANTISHIP MISSILE DEFENSE (ASMD)

The antiship missile defense (ASMD) program significantly improves a ship's capability in countering high-speed, low-altitude, antiship missile threats. In attaining this defense posture, the program requires modifications to the overall ship combat system for the following purposes:

To enhance low-flyer and electronic warfare (EW) detection capabilities

To reduce reaction times by modifying command and control functions for weapons direction

To improve gun and missile system engagement capabilities

In addition to these combat system improvements, on-board training devices are installed to support combat information center (CIC) team training exercises. The ASMD program furthers the improvements provided by the ship's anti-missile integrated defense (SAMID) immediate program by expanding ship capabilities to counter antiship missile threats. The ASMD program integrates additional subsystems into the combat system. It makes use of expanded tactical data processing techniques by providing a fully automatic method of responding to particular antiship missile threats.

The gun weapons system supports that element of the ship's mission requiring offensive operation against air, surface, and shore targets. It provides this support through its ability to destroy these types of targets at ranges within the minimum-range capability of the guided-missile systems.

As in other types of warfare, successful AAW operations must be based in part on lessons learned through costly experience and must be practiced continually.

ANTISUBMARINE WARFARE

The basic elements of the Navy's antisubmarine warfare (ASW) forces include surface ships, aircraft, and submarines. The integrated undersea surveillance system (IUSS) is also an integral part of our ASW system. This system cues our engagement forces to respond quickly to ASW tactical areas. These elements are capable of operating independently or with each other.

The basic mission of antisubmarine warfare is to deny the enemy the effective use of submarines. We must go beyond what we have learned in the past by developing new techniques to match the expanding role of the submarine. The long-range nuclear-missile capability of today's submarines requires that we do more than prevent submarine torpedo attacks on our shipping and naval vessels. Instead, we must find and keep under surveillance all enemy submarines before they can reach a point within missile-launching range of our coasts.

SURFACE UNITS

The surface ship has a greater variety of both detection equipment and weapons than any other ASW unit. A prime advantage of the surface ship is its ability to conduct all-weather operations and to remain on station for a comparatively long time.

Our most effective ASW surface ships today are frigates, destroyers, and cruisers equipped with SH-60B LAMPS helicopters (fig. 12-4).

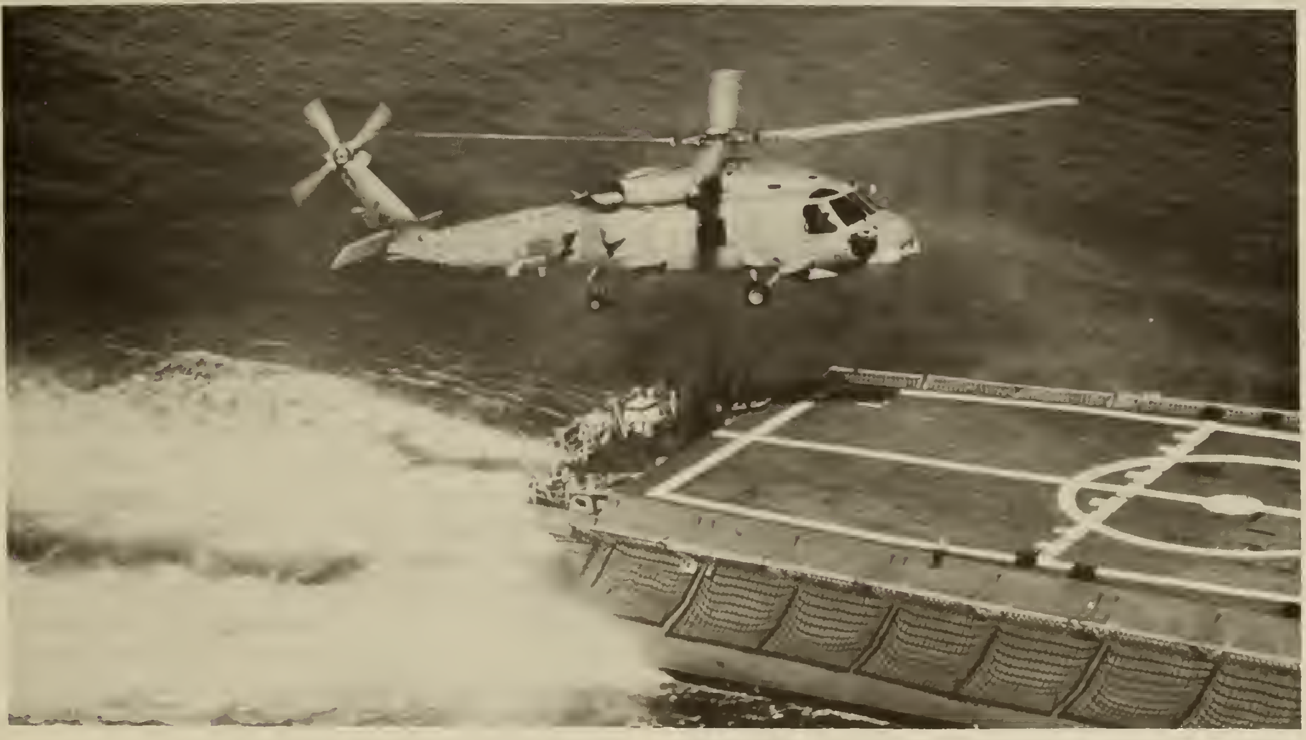

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Figure 12-4.—An SH-60B Seahawk helicopter in flight near the stern of a guided-missile frigate.

These ships use new and improved radar, sonar, electronic countermeasures, and communications systems to enhance their detection capabilities.

Another major surface unit is the aircraft carrier, with ASW aircraft embarked. A carrier can monitor midocean areas beyond the effective range of land-based patrol aircraft.

ASW AIRCRAFT

Aircraft have the ability to investigate distant contacts rapidly and are relatively invulnerable to submerged submarines. They also have the advantages of speed, relatively long range, and weapons-carrying capability. Therefore, they may fulfill the antisubmarine mission independently or in coordination with other types of antisubmarine units.

The three basic antisubmarine warfare aircraft are long-range patrol aircraft, medium-range carrier-based aircraft, and helicopters. We described some of these aircraft, primarily the P-3C Orion, the S-3A Viking, and the LAMPS III helicopters, earlier in this chapter. These aircraft use a wide variety of electronic devices to detect submarines.

The magnetic anomaly detection (MAD) device is used mainly for submarine classification purposes. Depending on the height of the aircraft and other variables, it can detect a submarine by variations in the earth's magnetic lines of force. Because of its limited range, MAD is unsuitable as a device for open area searches. However, it is effective when used in geographically or tactically defined or restricted small areas. Aircraft normally use the MAD device to detect the specific location of a submarine before they attack it.

Expendable sonobuoys, used with measured success against submarines of the last war, are very useful against submarines in a variety of tactical situations. Sonobuoys are tubes containing a hydrophone and radio transmitter. As aircraft drop them into the water, the hydrophones pick up sounds and broadcast them to surface craft or aircraft. Each sonobuoy is on a slightly different frequency. An active buoy is also used that emits a sound signal and listens for the return echo.

Since helicopters are capable of hovering, they use a different piece of equipment. The aircraft, by means of a long cable, lowers a cylindrical sonar transducer into the water while hovering over the suspected contact area. With this gear the helicopter can listen or echo-range (determine the location of a submarine).

Other methods of detection include infrared detection and explosive echo ranging using sonobuoys.

In all types of airborne electronic ASW devices, proper training of both operating and maintenance personnel is paramount to successful application of the equipment. Certain applications require special techniques for effective use of sonobuoys and other sonic devices. Proper and accurate sound identification and spotting of snorkel targets on radarscopes are examples.

ASW SUBMARINES

The submarine itself is perhaps the most effective antisubmarine vehicle. It operates in the same medium as the target and shares the target's advantages of concealment and passive detection. (Passive sonar depends entirely on the target's noise as the sound source rather than the returned echoes of a transmitted signal.) The submarine can detect enemy submarines while working with other ASW forces or while working independently. Submarines can precede carrier strike forces into enemy waters, function as ASW screens, and operate as minelayers. Fleet ballistic missile submarines are used to destroy enemy targets when ordered by the President of the United States.

SOUND NAVIGATION AND RANGING (SONAR)

The use of sonar (*so*und *na*vigation and *r*anging) is the principal method of submarine detection. We have two types of sonar—passive and active. Sonar is an electronic device that either detects underwater sounds or transmits them. Passive sonar detects sounds originating under water. Active sonar is an electronic device that can transmit (through the depths) a sound wave which, upon striking an object, will reflect. Submarines use passive sonar to enable them to detect noise-making objects without transmitting a telltale ping themselves.

To understand how sonar works, you must first understand sound. Sound is the physical energy that causes the sensation of hearing. It travels in the form of waves away from the point of origin, as ripples travel out in all directions from a pebble tossed into a pond. Echoes are created when sound waves strike objects through which they cannot travel and therefore bounce back to the source.

The substance through which sound travels is called a medium. All types of matter are sound mediums of varying efficiency. The denser the medium, the more rapidly sound travels through it. Therefore, steel is a better medium than water, and water is a better medium than air.

Let us take a look at what happens to a sonar impulse after it leaves the transducer (the transmitting device in the water). The transducer introduces the sound wave into the water by converting the equipment's electrical energy into sound vibrations. The impulse travels at a rate of between 4,700 and 5,300 feet per second, depending on the temperature, salinity, and pressure of the water. The rate of travel of the impulse is four or five times faster than the speed of sound in air. However, the hazards of travel take their toll on its speed and signal strength. Current, bubbles, and wakes absorb some of the sound. As the impulse passes through foreign matter such as seaweed, silt, and animal life in the water, it scatters and becomes even weaker. As the sound wave travels away from the transducer, it spreads out like a searchlight beam. The further away it travels from the transducer, the weaker it becomes.

Once the wave strikes an object such as a submarine, that portion of the impulse which is at a right angle to the object reverberates toward the sonar receiver. Again absorption, scattering, and spreading will affect the strength of the impulse. However, it will still signal a possible target unless multiple reflections, or echoes, such as reverberations, self-noise, and a high surrounding noise level, drown it out.

Multiple reflections, or echoes, can come from many sources. Sound waves bouncing off small objects such as fish or air bubbles produce small echoes. Sound waves reflected from the sea surface and bottom also cause echoes, and the sea mass itself causes reverberations. These reverberations appear on video and audio receivers. Reverberations from nearby points may be so loud on the audio receiver that they interfere with, or completely mask, the returning echo from the target.

SHIPBOARD ASW ORGANIZATION

Sonar control is the major shipboard ASW station. Other stations are the bridge, the combat information center (CIC), and the ASW weapons batteries. On most ships this organization is integrated into the combat systems department.

Sonar control is the ASW station that maintains a continuous underwater search for submarines. From the bridge, the officer of the deck conns the ship, keeping other control stations informed of the ship's maneuvers.

The combat information center is the key station for coordinating search/attack operations within the ship and betweens ships and/or aircraft. Personnel in CIC plot, display, evaluate, and disseminate all air, surface, and subsurface contact information and recommend search plans to the commanding officer.

In modern ASW ships, the captain and the tactical action officer (TAO) often direct the attack from CIC. However, the CO may choose to remain on the bridge. When that happens, repeaters duplicate information from CIC for the captain's use while phone talkers relay amplifying information to him. That enables the captain (in conjunction with the TAO in CIC) to evaluate critical elements of the attack from his position on the bridge. After evaluating elements such as the target's course and speed, the captain can then authorize delivery of the necessary ASW weapons.

AMPHIBIOUS WARFARE

Amphibious warfare encompasses many different types of ships, aircraft, weapons, and landing forces used in a concerted military effort on a hostile shore. An amphibious operation is an attack launched from the sea by naval and landing forces. The landing forces, transported by afloat landing craft and helicopters, may include Army and Marine Corps troops. During such operations, both surface ships and aircraft usually bombard the hostile shore immediately before the landing.

Amphibious operations are conducted to establish a landing force on a hostile shore to do all of the following actions: to prosecute further combat operations; to obtain a site for an advanced naval or air base; and to deny the use of an area or facility to the enemy.

The principle type of amphibious operation is the amphibious assault. The amphibious assault follows a well-defined pattern. The general sequence consists of planning; embarkation; rehearsal; movement to the objective; and finally, assault and capture of the objective.

PLANNING

The planning phase of an amphibious assault reflects the collected intelligence data on enemy forces and the territory concerned. It is designed to accomplish several tasks, including the following:

- Embarkation by combat loading methods
- Movement to the amphibious objective area, including defense against air, submarine, and surface attack
- Preassault operations (preparation of the objective area), which include gaining and maintaining local air superiority; destruction of enemy forces and installations by naval aircraft, shipboard guns, and missiles; clearance of mines and underwater obstacles; reconnaissance of beaches by underwater demolition groups; determination of exits inland; and isolation of the objective area
- Ship-to-shore movement by which troops and their weapons, vehicles, and supplies are moved ashore by helicopters and landing craft, or both
- Clearance of beach obstacles and movement inland with tank, artillery, and light and heavy vehicles
- Naval gunfire, missile, and air bombardment in support of the assault and the movement inland
- Landing of supplies and logistic support buildup

Although this list of tasks is incomplete, it illustrates the many requirements that must be considered and resolved. An amphibious assault can succeed only if it is carefully planned, organized, and timed. Planning is the responsibility of the commander and an assigned staff. It demands a complete knowledge of the various combat arms employed and the numerous problems unique to an amphibious operation.

EMBARKATION

In a major amphibious operation, troops are assembled at various ports with their equipment and vehicles. Consistent with extremely detailed loading plans formulated during the planning phase, designated ships arrive in these ports at specified times, ready to embark the landing forces.

Each item of equipment is loaded aboard in reverse order of the priority in which it is desired on the hostile beach. The combat cargo officer of the ship and the commander of the landing force unit to be embarked in that ship prepare individual loading plans for each ship. The commanding officer of the ship reviews and approves the loading plan.

As soon as the ship is moored, it is in all respects ready for loading. All landing craft have been off-loaded, and appropriate cargo-handling gear has been placed in readiness. All cargo booms have been rigged as necessary to handle the material to be stowed in each hold. The advance party of troops boards the ship at the embarkation port and proceeds immediately with the details of loading. When all cargo is aboard, the remainder of troops embark. The ship then leaves its berth and proceeds to an anchorage to await the forming of the convoy. In crowded ports with few facilities, the ship may be loaded while at anchor by a procedure similar to that for ships which are moored. The only difference is that all cargo and equipment must be moved out to the ship by boats, barges, or other lighterage.

REHEARSALS

The schedule for an amphibious operation usually allows for one or more rehearsals carried out under conditions approximating those of the anticipated operation. All units that will take part in the actual operation should participate in the rehearsal. Rehearsals test the adequacy of the plans for the operation as well as the familiarity of all echelons with the plans. They also test the timing of detailed operations, the combat readiness of participating forces, and the effectiveness of communications. If practicable, rehearsals include naval gunfire and air support with live ammunition. Unloading is carried out as determined during planning to the degree needed for planners to effectively test tactical and logistic plans. Unloading tests the operation of the ship-to-shore movement control organization and the functioning of the shore party and all naval components. Following each rehearsal, all levels of command critique the exercise to emphasize lessons learned and to correct mistakes.

MOVEMENT TO THE OBJECTIVE

Every stage of movement of the amphibious task force to the objective area must be planned. That includes departure of participating ships from their ports of embarkation; their passage at sea; and their approach to, and arrival in, assigned positions in the objective area. The plan must include the movement of ships through rehearsal, staging, and rendezvous areas. Therefore, the movement plan organizes the amphibious task force into movement groups, which proceed along prescribed routes. Usually ships are assigned into fast or slow movement groups, depending on their sustained sea speed. Forces that may not be a part of the amphibious task force provide protection from air, surface, and subsurface attack. Carrier striking forces provide air cover and long-range reconnaissance. In addition, mine warfare ships perform screening duties with the help of other ships suitable for that purpose but with other primary functions. The safety of the amphibious ships with their embarked troops, equipment, and supplies is of paramount importance. Landing forces must arrive at the objective area without critical reduction in their combat potential.

THE ASSAULT

The assault phase begins when the assault forces arrive at their assigned positions in the amphibious objective area. It ends when the mission has been accomplished.

After all the prior planning and rehearsals and final movement into the objective area, the assault commences. The assault phase encompasses the following:

- Preparation of the beach by air strikes and naval gunfire
- Ship-to-shore movement of the landing force by helicopters, landing craft, amphibious vehicles, and landing ships
- Landings in landing and drop zones and on beaches by the assault elements of the landing force
- Inland operations to unify waterborne, helicopter-borne, airborne, and/or air-landed assault forces and to seize the beachhead
- Air support and naval gunfire support throughout the assault
- Landing of remaining land force elements to conduct any operations necessary to complete the accomplishment of the mission

The assault phase is a time when coordination of the operation is extremely critical. The amphibious task force commander, who has responsibility for the overall coordination of air and naval gunfire support, preplans to the greatest extent possible. Delivery of unscheduled fire support on targets of opportunity and unexpected changes in air operations require continuous and close coordination. Only through this coordination can the amphibious task force be assured of maximum effectiveness with a requisite degree of safety. The principles and procedures of fire support coordination haven't changed because of the introduction of nuclear weapons. However, the importance and extent of coordination have increased because of the magnitude of nuclear weapons effects.

The amphibious task force commander eventually shifts control of land operations to the landing force commander. That happens when both commanders agree that the landing force is firmly established ashore and ready to assume full responsibility for subsequent operations. The amphibious operation is then terminated with the amphibious task force remaining in support. The various units of the amphibious task force may then be used for operations in the area or reembarked on the ships from which they were dispatched.

NAVAL TELECOMMUNICATIONS

Communications is the key to command. It involves the transmission and reception of military instructions and information; it is at once the voice of command and the arm of control. It makes coordinated action possible by enabling our ships and aircraft to operate in a purposeful, cooperative effort. Modern naval operations can only be executed with effective communications and a master battle plan. All details of the plan must be communicated to the fighting units. Communications enables those at the highest echelons of command to test missions, objectives, and enemy capability and to determine appropriate courses of action.

Engagement in a full-scale war would allow no time for our nation to obtain quantities of telecommunications equipment and train thousands of personnel to use it. Naval telecommunications, being a function of command, must always be in a condition of preparedness. In the event of hostilities, the operating forces would depend on communications facilities in existence at the time.

A navy that operates on a worldwide scale requires the services of a global communications network. Commanders must be able to pass the word—to communicate—whenever necessary in any mode. They must be able to communicate between and among ships separated by varying distances and from and to ships, shore stations, and aircraft. The ability to communicate makes possible effective command and control. That, in turn, ensures the responsiveness of every mobile nerve center in the fleet to the tactical and strategic needs and services of every other element. A global organization of communications stations with hundreds of radio and landline circuits supports each force of ships. This support means a force of ships is never out of touch with its base of operations. Orders and information affecting the successful outcome of the force's mission are exchanged swiftly and accurately throughout every level of command. The direct result of reliable communications is a tightly directed fighting unit.

Naval messages are sent and received in a variety of ways. The primary method is through the use of electrically transmitted communications; other types include visual, sound, and pyrotechnic communications.

ELECTRICAL

Electrical communications are sent by wave propagation through the atmosphere or by electrical conductors (wires) that connect the sending and receiving equipment. Atmospheric propagation is potentially the least secure method since anyone with a receiver can intercept the transmission. However, most communications circuits use cryptographic devices to distort transmissions.

Speed of delivery is one reason radio is the Navy's most important means of communication. However, it is also the only effective means by which the activities of widespread naval forces can be continuously coordinated.

Radiotelephone (R/T)

Radiotelephone (R/T) microphones are installed in strategic places on ships, such as the combat information center (CIC) and the bridge. The communications spaces provide transmitter and receiver service to these remote operating positions. Crew members communicate by speaking into a transmitting microphone connected to an assigned frequency.

Although R/T is the least secure form of all radio communications, some systems may now employ cryptographic devices.

Teletype

The mental and manual actions performed by an operator in converting letters to Morse code (and vice versa) are replaced in teletype by electrical and mechanical actions. To transmit a message, the operator types on a keyboard similar to that on a typewriter. Each key that is pressed feeds a sequence of signals into receiving machines causing them to type the message automatically.

Teletype signals may be sent by landline (wire), radio, or satellite communications systems. Both the military services and commercial communications companies such as Western Union use teletype communications.

The primary shipboard use of radio teletype (RATT) is for task-group and ship-to-shore communications. Fleet broadcasts, which formerly used high-frequency (hf) radio transmissions exclusively, are now making use of satellite communications. Automated information exchange systems also use satellites, with attendant high data rates.

Facsimile

Recent technological improvements have made commercial facsimile (FAX) machines a common and relatively inexpensive piece of office equipment. Many commands use these to transmit urgent correspondence over standard or secure telephone lines. The "fuzzy" message transmission quality is exchanged for almost instantaneous printed copies of graphic or typewritten documents.

Military FAX machines are used to transmit photographs, charts, and graphic or pictorial intelligence information electronically. Signals are transmitted either by landline or by radio.

FAX systems are not intended as replacements for other standard communications methods. They are a useful supplemental system for rapid communications.

Fleet Broadcasts

Radio traffic is sent to the fleet by two methods: broadcast and receipt. The first is a "do not answer" method; the second, as its name implies, requires a receipt from addressees for each message. The broadcast method allows the fleet to preserve radio silence, which is a great advantage from the standpoint of security.

Civilian and naval broadcasts have some similarity. Commercial stations in the broadcast band transmit programs to radio receivers in the homes in their communities. Likewise, Navy communications stations broadcast messages to fleet units in their particular geographic areas. The term *broadcast*, in fact, originated in naval communications.

The resemblance between Navy commercial stations ceases here, however. Information broadcast by naval communications stations is contained in chronologically numbered messages assigned to the ships. Fleet units copy the messages and check the numbers to ensure they have a complete file of all messages they should have received.

Automated systems now key fleet broadcasts. Messages are broadcast in their order of precedence. If the automated system receives a higher-precedence message while transmitting a lower-precedence message, it may interrupt the latter to transmit the higher-precedence message.

All ships copy all messages addressed to them that appear on the broadcast schedule they are guarding.

Fleet broadcasts use satellites as their primary transmission media. High-frequency (hf) radio transmission provides broadcast services to ships that are unable to copy the satellite systems.

Satellite Communications

A satellite communications (SATCOM) system is one that uses earth-orbiting vehicles or satellites to relay radio transmissions between earth terminals.

A typical operational link involves a satellite and two earth terminals. One station transmits to the satellite on a frequency called the up-link frequency. The satellite amplifies the signal, translates it to the down-link frequency, and then transmits it back to earth where the signal is picked up by the receiving terminal.

The Commander, Naval Telecommunications Command (COMNAVTELCOM), is designated the communications manager for Navy-assigned satellite systems. The responsibilities of the communications manager include operating the earth terminals and publishing *Satellite Communications Operating Procedures* (NTP-2).

Commander, Naval Space Command (COMNAVSPACECOM), is the operational manager for Navy satellites. The operational manager plans the location of spacecraft and fixed earth terminals and allocates satellite capacity, power, bandwidth, and operating frequencies.

The Navy uses two primary SATCOM systems:

- Long-haul (long-distance) communications takes place via the defense satellite communications system (DSCS), which is managed by the Defense Communications Agency (DCA). This high-capacity global system uses satellites equally spaced around the world operating on superhigh frequencies (shf). Ships and stations located anywhere on the earth from 70 degrees north latitude to 70 degrees south latitude have access to one of these satellites.
- The fleet satellite communications (FLTSATCOM) system operates at ultrahigh frequency (uhf), making possible the use of relatively low-cost terminals and simple antennas. Leased satellites (LEASAT) are part of this system.
- FLTSATCOM provides the primary means of Navy tactical satellite ship-shore-ship communications over the officer in tactical command information exchange subsystem (OTCIXS) and the tactical data exchange subsystem (TADIXS). The common user digital information exchange system (CUDIXS) and the naval modular automated communications system (NAVMACS) combine to form a general-service message traffic network.

Many current satellites are programmed to be phased out by a new generation of extremely high-frequency (ehf) satellites. The military strategic tactical and relay (MILSTAR) system is a joint service program expected to be operational in the 1990s.

VISUAL

Visual communications are the preferred means for communicating at short range when weather conditions permit. In reliability and convenience, visual communications often are the equal of radio and under certain circumstances are more secure than radio. For example, omnidirectional radio transmissions may be intercepted by many undesired listeners, whereas unidirectional visual signals are limited to observers positioned along the line of sight.

Visual signaling systems include flaghoist, flashing light, and semaphore.

Flaghoist

Flaghoist signaling can be a rapid and accurate communications method during daylight hours. International alphabet flags, numbered pennants, and special meaning flags can coordinate tactical maneuvers and ships' movements without radio transmissions.

All sailors are expected to recognize everyday flags. Sailors rely on the safety and informational messages relayed by these flags, such as ''divers in the water'' or ''captain's on board,'' to help them in their daily routine.

Flashing Light

Flashing light uses visible beams (or infrared light during tactical nighttime communications) to transmit Morse Code letters through an on/off method. Directional lights are pointed so that only the addressee can read the message. Omnidirectional lights may be located above the ship's superstructure for all ships within range to copy the message.

Semaphore

Semaphore is a communications medium by which persons signal with two hand flags, moving their arms through various positions to represent letters, numerals, and special signs.

Semaphore and flashing light can be used interchangeably for many purposes. Semaphore is more rapid for short-distance transmission in clear daylight and may be used to send messages to several addresses at once if they are in suitable positions. Because of its speed, semaphore is better adapted to the sending of long messages than are other visual methods. When radio silence is imposed, semaphore is the best substitute for handling administrative traffic. It is more secure than a light or radio because it provides less chance for interception by unauthorized persons.

SOUND

Sound communications systems include whistles, siren, bells, and acoustics. Ships use the first three to transmit emergency warning signals (such as air-raid alerts) and navigational signals prescribed by the rules of the road. In wartime, ships in convoy use these three systems to communicate with each other.

An underwater sonar system called Gertrude is part of acoustic submarine communications. Used primarily for hailing NATO ships, it may be used for radiotelephone or carrier-wave (c/w) transmission.

PYROTECHNICS

Pyrotechnics is the use of ammunition, flares, or fireworks to signal a message or to illuminate or mark targets. Most pyrotechnics for signaling are of the ''fireworks'' variety. Common sources are marine illumination cartridges, colored shell bursts (parachute flares), aircraft parachute flares, roman candles, and float-type flares. The meaning of a pyrotechnic signal depends on the color instead of the type of pyrotechnic employed. The authorized use of pyrotechnics for communications is, in general, limited to emergency signals.

SUMMARY

The preceding discussion of naval warfare operations demonstrates that extensive planning is required if a mission is to be successful. When all of the warfare components function together, close cooperation must be maintained between them. To a large extent, that is achieved before an operation is conducted.

One vital element that must be present throughout the operation, however, is communications. All participants in an operation must be able to communicate with each other.

All of these components function as members of the Navy team. Trying to conduct a successful mission without any particular one of the components would be disastrous. However, when all function together as one, our Navy can achieve its assigned missions.

REFERENCES

Joint Doctrine for Amphibious Operations, JCS Pub 3-02, The Office of the Joint Chiefs of Staff, Washington, D.C., 1988.

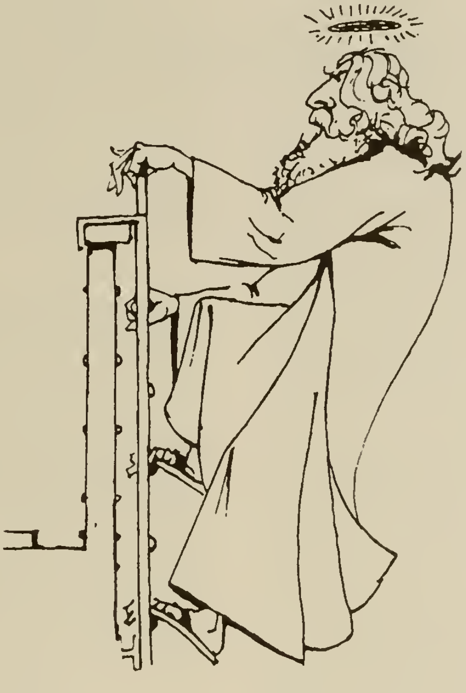
Naval Science for the Merchant Marine Officer, NAVEDTRA 38051, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1986.

Navy Fact File, 8th ed., Office of Information, Washington, D.C., 1988.

JACOB'S LADDER

A JACOB'S LADDER IS A PORTABLE LADDER MADE OF ROPE OR METAL USED PRIMARILY TO HELP PERSONNEL BOARD SHIP. ORIGINALLY, THE JACOB'S LADDER WAS A NETWORK OF LINE LEADING TO THE SKYSAIL ON WOODEN SHIPS. THE NAME ALLUDES TO THE BIBLICAL JACOB REPUTED TO HAVE DREAMED OF A LADDER THAT REACHED INTO HEAVEN.

ANYONE WHO HAS EVER TRIED CLIMBING A JACOB'S LADDER WHILE CARRYING A SEABAG CAN APPRECIATE THE ALLUSION. IT DOES SEEM THAT THE CLIMB IS LONG ENOUGH TO TAKE ONE INTO THE NEXT WORLD.



CHAPTER 13

SUPPORTING ELEMENTS OF THE NAVY

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the function of Civil Engineer Corps officers.
2. Identify the function of Supply Corps officers.
3. Identify the function and composition of the Bureau of Medicine and Surgery.
4. Identify the function of Navy chaplains.
5. Identify the function of officers of the Judge Advocate General's Corps.
6. Describe the purpose of the Navy's security program.
7. Describe the purpose of the Naval Intelligence Command.
8. Describe the organization and areas of research of the Navy's Research and Development Program.

SIGNIFICANT DATES

3 Feb. 1795	Congress establishes the Navy Supply Corps.
9 Mar. 1798	George Balfour is appointed as the first surgeon in the U.S. Navy.
30 Oct. 1799	William Balch is commissioned as the Navy's first chaplain.
26 Feb. 1811	A congressional act provides Navy hospitals.
2 Mar. 1867	Congress establishes the Civil Engineering Corps.
3 Mar. 1871	Congress establishes the Pay Corps.
9 Jun. 1880	William B. Remey, USMC, is appointed as the first Judge Advocate General.
4 Apr. 1898	Mordecai T. Endicott, the first Civil Engineer Corps officer, is appointed Chief, Bureau of Yards and Docks.
17 Jun. 1898	The Hospital Corps is established.
13 May 1908	The Nurse Corps is established.
22 Aug. 1912	The Dental Corps is established.

Certain supporting elements and branches of the Navy are required to accomplish the Navy's mission. This chapter discusses the functions of some of these elements and various Navy branches. In many cases, the functions of these supporting elements are essential to mission accomplishment while at other times they only provide assistance for particular needs. Overall, they fit into the team concept of the naval structure.

CIVIL ENGINEER CORPS

Officers of the Civil Engineer Corps (CEC), who administer the work of the Naval Facilities Engineering Command (NAVFACENGCOM), are commissioned naval officers with special technical qualifications. They are engineers and architects who manage the Navy's shore facilities and oversee construction and maintenance by the shore establishment. Additionally, they command the field forces that construct advanced bases for support of Marine and Navy contingency operations.

The Commander of the Naval Facilities Engineering Command is the Chief of Civil Engineers (that is, the head of the Corps). The commander exercises technical direction over the naval construction forces, generally known as the Seabees. NAVFACENGCOM also supports separate activities of the Department of the Navy whose primary function is organizing and equipping the naval construction forces. These activities include commands and organizations such as construction battalion centers.

Recent years have seen rapid technological and management system expansion throughout the engineering world and the Department of Defense. NAVFACENGCOM has been a leader in developing advanced management systems and in adapting these systems to the latest computers. Examples include the Shore Facilities Planning and Programming System, Production Management Systems, Base Engineering Support-Technical Systems, Energy Monitoring and Control Systems, and Engineered Performance Standards. Many of these systems use minicomputers to increase effectiveness and productivity.

In the area of engineering development, NAVFACENGCOM strives to turn the most up-to-date technological advances into the basis for the efficient, economical construction of Navy shore facilities. For example, the graphics design system has been installed in the design office to provide architects and engineers with a computer-aided method of preparing plans and designs. In the field of energy conservation and development, NAVFACENGCOM emphasizes the conversion of coal, wind, geothermal resources, and solar radiation into efficient sources of energy for the Navy. Greatly concerned with environmental protection, NAVFACENGCOM encourages the use of new methods of managing hazardous and solid waste and abating all types of pollution. To manage these new technologies, NAVFACENGCOM has established the Emerging Technologies Management Office to ensure the proper research and introduction of new ideas.

Over the last 20 years, NAVFACENGCOM and the CEC have undertaken major engineering accomplishments. The massive Vietnam construction program, which upgraded the entire infrastructure of that nation, required the efforts of CEC officers, the naval construction force, and civilian contractors alike.

The geopolitical events in the Middle East in the early 1970s emphasized the need for a military installation in the Indian Ocean. Upon being tasked, NAVFACENGCOM immediately went to work to plan the construction of a joint British-American stronghold and support facility on the strategically important Diego Garcia Island. A few years later, this tiny island had become an operational military installation complete with an airfield, pier facilities, a communications station, and total personnel support facilities.

A major element of the CEC is the construction battalions (Seabees). The primary job of the Seabees is to build. However, based on the theory that they can't build unless they control the jobsite, all Seabees receive training in defensive combat tactics. Controlling the jobsite involves "fighting," the second job of a Seabee, as exemplified by the Seabee motto *Construimus batuimus*, meaning "We build—we fight."

Each company in a battalion organization is divided into combat platoons, squads, and fire teams. A Marine Corps gunnery sergeant is assigned as a military adviser and training specialist to the commanding officer of the battalion.

As a self-sustaining unit, a naval mobile construction battalion (NMCB) must be capable of self-defense for a limited time. Each battalion subdivision has a construction/military support assignment, and everyone in the battalion fills a construction/military support billet. The construction aspect, of course, predominates; the mission is to build. Platoons are organized into work crews that correspond to the weapons squad organization. The basic construction/military support units are the work crew/rifle fire team, work crew/automatic weapons team, and the work crew/heavy weapons team. Figure 13-1 illustrates the diversity of Seabee functions in Vietnam.

A. STEELWORKERS REMOVE ROCKET-DAMAGED STEEL MATTING FROM AN AIRFIELD PARKING APRON.

B. BRIDGE EXPERTS SURVEY VIET CONG-BLOWN BRIDGE.

C. UNITS OF AN NMCB CONSTRUCTING A BRIDGE.

D. ERECTING A HANGAR FOR THE MARINES.

F. WORKING ON A CANTONMENT FOR ROK TROOPS.

F. PERIMETER PATROL RETURNING TO BASE.

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Figure 13-1.—All construction battalions were committed to Vietnam. More than 50 percent of those in the country were, or had been, engaged in providing tactical support construction to United States and Allied forces under fire.

THE SUPPLY CORPS

The problem of logistics in any future war, except limited conflicts, would exceed anything our nation has so far witnessed. The extent of total conflict would probably be such that we would have to mobilize all of our economic resources to engage the enemy successfully. While today's situation is entirely different from that faced by John Paul Jones, the basic logistics are the same as they were in Jones' time. In arming, supplying, and manning his ships, Jones went through the same processes of determination of requirements, procurement, and distribution that are used today. However, his problem was not as extensive, and he probably didn't think of it in such formal terms.

The determination of requirements is the first step in the formation of any logistics plan. It is a military responsibility and prerogative involving strategy and tactics. It encompasses determination of requirements for the conduct of global war as well as the determination of requirements for a small task unit engaged in a minor operation.

The next step is procurement. It is based upon the determination of requirements, the production sources available, and those sources to be developed. In many respects it may be thought of as the point or zone of contact between the armed forces and the civilian economy. It is primarily controlled by the civilian element of the defense structure. Thus, while elements of the Navy Department may undertake the actual details of procurement, they do so under policies prescribed by and under the watchful eyes of the Secretary of the Navy and his civilian assistants.

Distribution, the last step of the logistics process, starts with accumulation at continental depots and ends with delivery to the ultimate consumer. The responsibility for distribution of goods in the Navy rests on the shoulders of Supply Corps officers.

Officers of the Supply Corps are the Navy's business administrators. As such, they direct the Navy's logistics requirements as set forth by the Chief of Naval Operations. They make sure these requirements are provided efficiently and economically to ships and activities around the world. They manage a supply system that furnishes well over a million items essential to the operations of ships, missiles, aircraft, and facilities. In addition, Supply Corps officers disburse pay and allowances of Navy personnel and manage the operation of food service, ship's store, and Navy Exchange facilities.

Supply Corps officers serve in varying duty assignments, ranging from supply officer aboard a destroyer to Commander of the Naval Supply Systems Command. (The Commander of the Naval Supply Systems Command is a rear admiral who also serves as the Chief of the Supply Corps.) The Naval Supply Systems Command is responsible for overall management of the Supply Corps ashore and afloat. Disbursing and certain other comptroller billets to which Supply Corps officers may be assigned are under the management of the Navy.

Afloat supply officers manage the procurement, receipt, custody, stowage, and expenditure of material for ship's use as well as food service and ship's store operations. They maintain stock records and inventory control and supervise payment of the crew. Ashore billets manage requisitioning and local procurement, contract purchasing, and material inspection and receipt. They are in charge of stock management at field supply points, supply systems management, stowage and materials handling, and financial management.

Current Corps strength is about 4,500 officers, 50 percent of whom serve afloat and overseas. The Naval Reserve Officer Training Corps program serves as the main source of Supply Corps officer input. The Naval Academy, Officer Candidate School, the Limited Duty Officer Program, and line officer transfers also supply the corps with officers. While not officially members of the Supply Corps, about 300 chief warrant officers serve in the technical specialty of supply clerk. Supply clerks are assigned to Supply Corps billets both afloat and ashore.

Newly commissioned Supply Corps officers, including line transferees and newly appointed chief warrant supply clerks, are sent to the Navy Supply Corps School, Athens, Georgia. They receive 26 weeks of intensive training in Basic Supply Management and instruction in a wide range of sophisticated management techniques, including automatic data processing. Upon completing the course, most corps officers receive assignments to afloat billets followed by tours ashore in the continental United States (CONUS) and overseas. By their third tour, typical Supply Corps officers are expected to develop a functional proficiency in one field. The field may be clothing and textiles, financial management, fuel distribution, merchandising, procurement, subsistence technology, system inventory management, or transportation management.

Courses in Navy Exchange Management (6 weeks) and Commissary Store Management (4 weeks) are conducted several times yearly at the Navy Resale and Services Supply Office, Brooklyn, New York. A 6-month course in Transportation Management conducted at the Naval Supply Center, Oakland, California, covers material on terminal operations and stevedoring, traffic management, and warehousing. Supply Corps officers may also attend other courses of varying length conducted at both military and civilian facilities. Course subjects may range from petroleum storage to computer systems.

Development of a functional proficiency in no way detracts from the overall opportunity of supply officers to upgrade their professional qualifications as a naval officer. Each year approximately 100 Supply Corps officers are selected for postgraduate training at military and civilian institutions, some at the doctorate level. Studies range from logistics and management sciences to law and personnel administration. Long-range plans for Supply Corps officers involve their service as technoeconomists skilled in the mathematical sciences, analytical methods, and behavioral sciences essential to future Navy operations.

BUREAU OF MEDICINE AND SURGERY (BUMED)

The Bureau of Medicine and Surgery (BUMED) directs the worldwide medical and dental services and facilities maintained by the Department of the Navy. The mission of BUMED within the national defense structure of the United States is to safeguard the health of Navy and Marine Corps personnel in the following areas:

- Care and treatment of sick and injured members of the naval service and their dependents
- Training programs for BUMED personnel
- Continuing programs of medical and dental research
- Prevention and control of diseases and injuries
- Promotion of physical fitness of members in the naval service
- Care for on-the-job injuries and illnesses of civilian employees
- Supervision of the care and preparation for shipment and interment of deceased military members and of civilian personnel for whom the Navy is responsible

BUMED is headed by the Surgeon General of the Navy, who serves as Chief of BUMED. The Chief of BUMED promotes quality health care for the patient and professional responsibility for the patient's well being. BUMED performs budget formulation; provides manpower, facilities, and material; establishes clinical standards; and assures total quality management.

The first naval hospital was opened in Portsmouth, Virginia, in 1830. In its earliest days, the hospital was limited to a medical staff of five men and very little equipment. The steady progress made in the naval hospitalization system since 1830 has kept pace with the rapid strides made in civilian hospital services and medical education. Today, the Navy operates over 30 hospitals in the United States (4 of which are teaching hospitals) and over 100 medical clinics.

A naval hospital provides relatively full diagnostic and therapeutic services together with bed care, nursing, and dietetic services. Because accessibility and capacity to serve the operating forces are prime site considerations, most hospitals are located along the coastal states. Station hospitals can offer extended care to patients, but they are smaller and more limited in scope. A medical center provides temporary in-patient treatment for those personnel with a favorable prognosis for early release. A clinic is designed mainly to provide examination and treatment for ambulatory patients and first aid for emergency cases.

Aboard ship, the scope of medical facilities depends upon the complement of medical personnel, available space and equipment, capability of the staff, and mission of the ship. Facilities thus range from the scantily furnished sick bay of a destroyer to one that is fully equipped aboard a carrier. Personnel assigned vary from 2 hospital corpsmen on a destroyer (the senior corpsman being specially trained for independent duty) to perhaps 40 or 50 officers and hospital corpsmen on aircraft carriers.

To meet the demand of Navy health care, over 3,900 physicians, 3,100 nurses, and 2,600 Medical Service Corps officers serve in the Navy. Other personnel who provide medical assistance include dentists, physician's assistants, hospital corpsmen, and dental technicians, as well as a large number of civilians.

THE CHAPLAIN CORPS

The Constitution of the United States guarantees "free exercise of religion" to all its citizens. However, military personnel often find themselves stationed far from their traditional religious communities. Therefore, Congress authorized the establishment of the Navy Chaplain Corps to provide for the religious needs of personnel of the Navy, Marine Corps, and Coast Guard. Commanding officers have the responsibility to ensure this constitutional right for each person in their command. Navy chaplains are accountable to their commanding officers for the pastoral care of personnel of all faiths.

Though commissioned as an officer, the chaplain is first ordained as a member of the clergy in one of the religious bodies of the country. The wearing of the naval uniform is believed to enhance the chaplain's effectiveness in ministering within and to the military organization. The uniform, itself, indicates the chaplain's responsibility to the naval service and the Nation. The insignia worn, the Cross or the Tablets of the Law, identifies a person as a chaplain. It also emphasizes the chaplain's responsibility to church and spiritual values.

Standards for appointment as a chaplain are high. Each appointee must be physically qualified. Each must have completed at least 120 semester hours of undergraduate study in an accredited college or university and a minimum of 90 semester hours in an approved theological school. Before the appointment can be made, the chaplain must be duly ordained and provided with an ecclesiastical endorsement by his or her own church.

As religious leaders, chaplains advise the commanding officer on all matters pertaining to the moral, spiritual, and religious welfare of Navy, Marine Corps, and Coast Guard personnel. Chaplains always conduct divine services according to the customs, traditions, and regulations of their own church. Frequently called upon to provide religious services for those of other faiths, however, they must minister to the needs of people of all faiths. Their responsibilities include inviting appropriate clergy aboard, training lay readers, and providing proper material and ecclesiastical support. Each chaplain should use ideas, techniques, and methods that will help all command personnel grow spiritually and develop good character.

Navy chaplains have long upheld the tradition of ensuring free exercise of religion by providing moral and spiritual support and guidance. Often chaplains devote the bulk of their efforts to pastoral care and pastoral counseling. In giving pastoral care, chaplains try to reflect the heart of God in their actions. They serve as agents through which God imparts healing, spiritual renewal, and unconditional love. In pastoral counseling, chaplains help personnel resolve domestic problems as well as personal issues and crises. In addition, chaplains conduct regular worship services; provide religious educational opportunities; and perform baptisms, confirmations, marriages, and other sacraments and ordinances.

Chaplains serve at sea on a normal rotational basis. Some are assigned directly to ships' companies. Others become "circuit riders" who meet the needs of those on small ships and stations or at widely dispersed units. For example, a chaplain assigned to minister to destroyer personnel will serve many ships operating over great distances. Over 50 percent of the Navy chaplains are assigned to sea or overseas billets. In addition, Navy chaplains serve major tactical and support units of the U.S. Marine Corps. Approximately 20 percent of the total number of active-duty chaplains are attached to Marine Corps units at any given time. Ashore, three or more chaplains may be assigned to larger Navy, Marine Corps, and Coast Guard stations. Many of these stations have well-equipped chapels and educational facilities (fig. 13-2).

Chaplains serve in commissioned grades from lieutenant (junior grade) through captain. Their promotions are based on the same precepts and regulations governing all other naval officer promotions. The Chaplain Corps is directed by the Chief of Chaplains, a rear admiral.

JUDGE ADVOCATE GENERAL'S CORPS

The American Fleet was authorized in 1775, and the Department of the Navy was established by an act of Congress in 1798. However, the Navy had no official legal counsel until well into the 19th century.

In 1864, because of contract frauds arising under Civil War naval programs, Secretary of the Navy Gideon Welles created the position of Solicitor for the Navy Department. The quickly

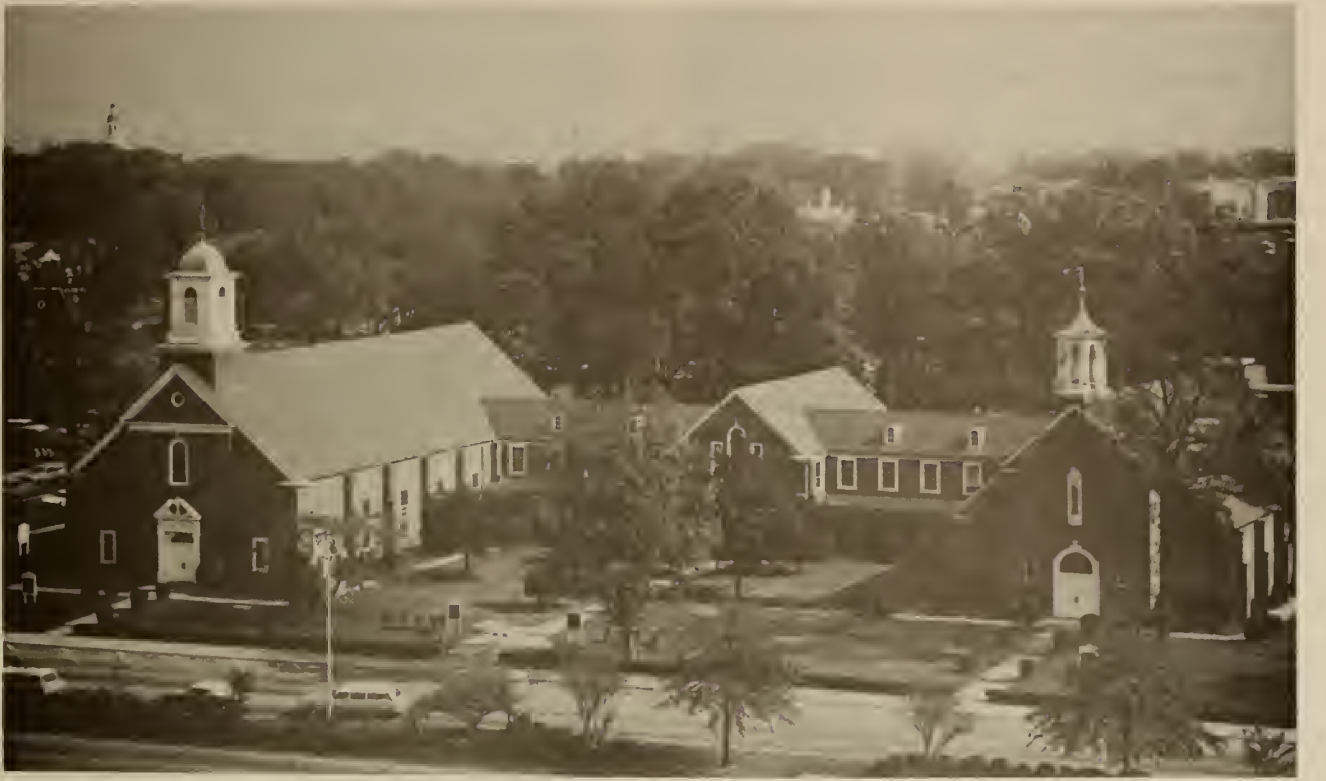

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Figure 13-2.—On the naval base at Norfolk, Virginia, are the chapels of three faiths under one roof. To the left is the Protestant chapel; to the right, the Catholic chapel; and connecting the two, the Jewish chapel.

proven value of the Solicitor's function moved Secretary Welles to request legislative ratification of the new legal office. By the act of 2 March 1865, Congress established the Office of Solicitor and Naval Judge Advocate.

The act of Congress on 8 June 1880 established the Office of the Judge Advocate General of the Navy as we know it today. This legislation placed upon the Judge Advocate General the duty to "receive, revise, and have recorded the proceedings of all courts-martial, courts of inquiry, and boards for the examination of officers for retirement and promotion in the naval service, and to perform such other duties as have heretofore been performed by the Solicitor and Naval Judge Advocate General." The Judge Advocate General was given cognizance over all legal matters, of whatever kind, that affected the interest of the Navy.

Before World War II, Navy lawyers were usually line officers with legal training. Their tours of legal duty, usually in the Office of the Judge Advocate General, alternated with tours of line duty at sea. During the war, many lawyers served in both line and legal functions throughout the world.

The idea of organizing the Navy's uniformed lawyers into a distinctive professional group performing only legal functions was first considered a number of years ago. In 1945 the Secretary of the Navy convened the McGuire Committee, chaired by Matthew F. McGuire, a prominent civilian lawyer. The committee examined court-martial procedures under the Articles for the Government of the Navy. The committee's November 1945 report to the Secretary formally recommended the establishment of a Judge Advocate General's Corps in which officers would perform legal duties only.

The recommendation of the McGuire Committee prompted Secretary of the Navy James V. Forrestal to appoint a board to look further into the question. Headed by Arthur A. Ballantine of the New York Bar, the board finished its report in April 1946. The report concluded that World War II had proven beyond all question the need for a large number of lawyers to perform legal duties on a continuous basis. However, it recommended the creation of a ''law specialist'' category in the restricted line. The report concluded that this category would benefit the Navy more than the creation of a JAG corps. Authorized to procure 300 lawyers in June 1946, the Navy began the Law Specialist Program.

Until late 1967 many unsuccessful attempts to establish a JAG Corps were made. At that time a subcommittee of the House Armed Services Committee scheduled a hearing on provisions for the establishment of a JAG Corps in the Navy. The Judge Advocate General of the Navy presented convincing testimony at the hearing. His testimony showed that membership in a legal corps would give the Navy lawyer a sense of professional identity and provide a potent career incentive.

The proposed legislation made the full course from subcommittee hearings through a receptive Congress to final passage within a little more than 2 months. On 8 December 1967 President Johnson signed Public Law 90-179, which established the JAG Corps as a staff corps of the Navy.

Military justice is only one of the many areas of responsibility handled by Navy lawyers. Judge advocates provide legal advice in the fields of international law, admiralty, administrative law, claims litigation, and investigations. They also provide legal services to service members and their dependents in areas such as taxation, promotions, and retirement.

Activity in these fields and in military justice is constantly expanding and changing. The largest change, concerning expanded rights to military people, occurred with passage of the Military Justice Act of 1968. This act expanded the rights of the accused to receive legal counsel before special courts-martial. It also inaugurated the use of military judges to preside over special courts-martial.

JAG Corps members serve in the offices of the Secretary of Defense; Secretary of the Navy; Chief of Naval Operations; and the Chief of Naval Personnel. Other offices in which they serve include the Bureau of Medicine and Surgery, Chief of Naval Research, Comptroller of the Navy, and the Joint Chiefs of Staff.

Additionally, Judge advocates are assigned to the staffs of the Navy's various area coordinators to handle legal work generated within that area. Locally, they serve on the staffs of fleet, force, and type commanders and at many naval bases, stations, and schools.

Since 1969 the JAG Corps has been organized into four basic components: the Office of the Judge Advocate General, staff and activity judge advocates, law centers, and a training component. Under that organizational structure, the corps experienced problems in personnel distribution, uniformity of funding and support, and standardization of operations. These problems impeded the corps' efforts to give the best service it could provide.

Following an extensive study of the problems, the Naval Legal Service was established in 1973. Its mission was to control the legal services program and provide command direction for all Naval Legal Service activities and resources assigned. It was also to perform other functions or tasks related to the Naval Legal Service as directed by the Chief of Naval Operations. Headquartered in Washington, the Naval Legal Service was authorized 18 offices and 15 branch offices throughout the world.

Technically, Naval Legal Service offices serve as legal service centers in areas that have a major concentration of naval activities. Within the limits of strength authorizations, these offices provide a full array of legal services to commands that have no judge advocate assigned. A primary purpose of the establishment of the Naval Legal Service was to bring all trial and defense counsels under the direct authority of the Judge Advocate General. This step made the Naval Legal Service independent of court-martial convening authorities.

Even though it is a relatively new organization, the Navy JAG Corps continues to expand. The passage of legislation by Congress and the increased need for legal services by Navy members result in increased responsibilities for the JAG Corps.

SECURITY

Although not in the same vein as some of the supporting elements previously discussed, the Navy's Security program helps to prevent the disclosure of sensitive information. It deserves careful attention by all naval personnel.

The word *security*, like many other words, has several meanings. Expressed simply, for naval purposes, SECURITY = PROTECTING CLASSIFIED INFORMATION. Security requires active Navy support of Presidential Executive Order 12356 governing classifying and safeguarding national security information.

Classified information takes several forms. It includes paper documents, automatic data processing (ADP) storage media, telephone conversations, microforms, circuit boards in equipment, and hardware configuration briefing charts. Regardless of the form, however, the President directs that official information shall be classified if its unauthorized disclosure can reasonably be expected to cause damage to the national security.

The Navy's objective of protecting classified information requires several actions. Of these actions, the following are some of the most important:

- Clearing military and civilian personnel for access to classified information (personnel security)
- Ensuring that people know security rules (security education and training)
- Identifying what specific information must be classified (classification management)
- Notifying users how to protect classified information (marking)
- Keeping track of classified information (accounting and control)
- Preventing unauthorized access to classified information (physical security)
- Providing a secure environment for electronic processing of classified information and data (ADP security)

Information that requires protection in the interest of national security is classified into three categories. These categories, in descending order of importance, are Top Secret, Secret, or Confidential. A Top Secret classification is applied to information that, after unauthorized disclosure, could be expected to cause exceptionally grave damage to the national security. Secret applies to information that could cause serious damage to the national security. Confidential applies to that which could cause identifiable damage.

Official information and data generated and used by the Navy are released to the public in large quantities. Classified Navy information, however, must undergo careful screening to be declassified or to have sensitive portions removed before it can be considered for such release. The President has determined that designated Navy officials may classify information only if it falls under one of 10 categories:

1. Military plans, weapons, or operations (e.g., Navy plans to help rescue U.S. citizens captured by terrorists)
2. Vulnerabilities or capabilities of systems, installations, projects, or plans relating to the national security (e.g., the range of a new missile)
3. Foreign government information (e.g., Canadian secrets shared with the United States with the understanding that they will be protected)
4. Intelligence activities (including special activities) or intelligence sources or methods (e.g., explanation of classified satellite photographs of Soviet weapons)
5. Foreign relations or foreign activities of the United States (e.g., U.S. policy for dealing with Soviet requests to purchase grain while arms negotiations are under way)
6. Scientific, technological, or economic matters relating to the national security (e.g., research on certain aspects of the strategic defense initiative)
7. United States government programs for safeguarding nuclear materials or facilities (e.g., not revealing information as to whether or not a ship is carrying nuclear weapons when it visits foreign ports)
8. Cryptology (e.g., machines and systems for protecting United States communications from being compromised)
9. Confidential source (e.g., names of foreign newsmen who give us secret Soviet plans for the evacuation of Afghanistan)
10. Other information related to the national security that requires protection against unauthorized disclosure as determined by a Navy original classification authority

Foreign espionage against the United States is a serious and growing concern of the Secretary of the Navy, the Chief of Naval Operations, and the Commandant of the Marine Corps. Combatting it requires informed, constant, and alert attention to procedures for safeguarding classified information by the active cooperation of every member of the Navy. The agents of hostile governments and terrorists groups have amply demonstrated their danger to the security and future of the United States. In recent years, however, disaffected U.S. citizens entrusted with classified information, including naval personnel, have caused exceptionally grave damage to our country. Several Navy officers and chief petty officers, Navy and Marine Corps noncommissioned officers, and civilians have willfully and deliberately sold secrets to foreign governments for personal financial gain. Since 1985, the so-called "Year of the Spy," United States counterintelligence has identified, prosecuted, and convicted several active-duty and retired personnel for espionage. These espionage activities have included the following acts of betrayal:

- Information sold to the Soviet Union by a recent family network of spies provided the Soviets with U.S. Navy communications and antisubmarine operational tactics. Subsequently, the Soviets arranged to obtain, through a foreign manufacturer, restricted-technology milling equipment needed to develop more silent submarine propellers. Consequently, Soviet submarines have the technical capability to reduce their noise under water, which makes them harder to detect and locate.

- A U.S. Navy ship discovered that over 100 classified documents were missing. It then submitted a report to the Chief of Naval Operations (CNO) concluding that the documents were probably destroyed by accident without being compromised. Copies of two of the documents were later found among the 15 pounds of classified material taken by a young sailor. The sailor had planned to pass them to his father, a Soviet spy for almost two decades. Father and son were sent to prison.

- A second class petty officer, with a security clearance, telephoned the Soviet embassy in Washington, D.C., and offered to sell classified information for $1,500. Following his conviction, he told a Navy counterintelligence official that he did this for the money.

- An active-duty chief petty officer took classified information home as personal study material. He was apprehended and charged with possible espionage.

- A Marine Corps deserter, living overseas on the charity of others, told an elaborate—but untrue—story. He claimed he worked for a Soviet KGB agent as a spy against the United States. After his arrest, the marine admitted to the Naval Investigative Service that he made up the entire story because he enjoyed the glamour of being considered a spy.

- A Navy ensign was arrested after he mailed a classified electronic warfare document and two microfilm indices of key code words to a foreign embassy in Washington, D.C. The embassy, fortunately one from a friendly government, turned the material over to U.S. authorities along with the ensign's request for payment of $50,000. Court testimony revealed that he wanted to sell the material to raise money for his girl friend in another foreign country.

- A Marine Corps private first class who deserted his guard post at a Marine weapons compound turned up at the Soviet embassy in Washington, D.C. The marine offered to sell unspecified military information for $500 to $1,000.

The United States loses thousands of pieces of classified information each year, apparently without a trace. A simple explanation may be that too many people in the Navy and Marine Corps do not follow instructions or that they ignore regulations. Some of them may be disloyal citizens who pose a real or potential threat to the national defense. Regardless of the reason or motivation, they all make the foreign espionage agent's job easier. We may never know the full national security significance of many of these losses because we have not been effectively controlling or accounting for all classified information. Each member of the Navy must become a full partner in the costly, but necessary, efforts to keep better track of vital classified documents and equipment. Only by all hands working together can we guard our personal safety, protect the national security, and ensure the future of the United States of America.

NAVAL INTELLIGENCE

Intelligence, properly performed, can provide a foreknowledge of important information for both government and military leaders. It helps our leaders reach sound decisions that are vital to the security of a nation as well as to success in combat. It can reduce the possibility of surprise, evaluate enemy potential, and predict enemy areas of operation.

The misconception of intelligence as a mysterious, glamorous, and hazardous undertaking has been derived principally from two sources. The first has been its "cloak and dagger" treatment in popular literature; the second has been the natural reluctance of governments to disclose the inner workings of their intelligence organizations. Because of the critical nature of intelligence work, governments have surrounded this activity with the strictest of security regulations. Thus a void has been created in the public's image of intelligence work that has been filled by fictional versions.

While intelligence work does have its exciting moments, properly understood it is very similar to any other military staff function. Generally, it is knowledge upon which a course of action may be safely based. In its entirety, it is a vast and complex grouping of information covering a wide range of subjects. It includes closely interrelated subjects such as geography, transportation, telecommunications, sociological factors, political conditions, economic conditions, armed forces, technical developments, and biographical data. Intelligence workers can make a valid "estimate of a situation" only by considering each in its relation to the others.

Since intelligence activities have three basic purposes, they are divided into three functional segments: strategic intelligence, operational intelligence, and counterintelligence.

Strategic intelligence is used mainly by top echelons of command and top-level leaders in government as the basis for national planning and policy. That is, they use it in reaching broad decisions affecting the long-range security and welfare of a nation.

Operational intelligence helps the local commander decide what personnel and material to use against an adversary. Local commanders may use some of the strategic intelligence information for operational purposes. However, when executing a planned mission, local commanders require much more detail than strategic (long-range) planners.

Counterintelligence is designed to destroy the effectiveness of the intelligence efforts of foreign nations. For a nation to actively collect foreign intelligence about actual or potential enemies is not enough. A nation must also protect its own intelligence information from the prying eyes of other powers. Foreign intelligence is actively at work.

The term *Naval Intelligence*, when capitalized, refers to the organization, under the Commander, Naval Intelligence Command, responsible for carrying out the intelligence mission of the Navy. When not capitalized, the term *naval intelligence* refers to the material obtained, processed, and dispersed to appropriate naval authority.

A distinction exists between information and intelligence. Information is the raw material and intelligence is the finished product. Information becomes intelligence after it is evaluated.

In the United States Navy, the Chief of Naval Operations (CNO) supervises the intelligence function while the Director of Naval Intelligence (DNI) directs the total effort. The DNI carries out the responsibilities of the CNO regarding intelligence, cryptology, and security matters. The DNI is the principal staff adviser to the Secretary of the Navy and the CNO concerning plans, programming, and policy matters involving naval intelligence. The DNI also assists and advises the CNO in exercising command over the Naval Intelligence Command, the Naval Investigative Service, and the Naval Security Group Command.

The Office of Naval Intelligence maintains a relatively small staff to guide and support the functions of its headquarters. The Commander, Naval Intelligence Command (COMNAVINTCOM), controls the major portion of the functions of program management and intelligence collection, production, and dissemination. COMNAVINTCOM also serves as the Deputy Director of Naval Intelligence (DDNI) for Intelligence Production (OP-092D). The mission of COMNAVINTCOM is to ensure the Department of the Navy fulfills its security and intelligence requirements and responsibilities.

RESEARCH AND DEVELOPMENT

Because of the personnel, money, and materials involved, the research and development effort in the Department of Defense (DOD) and its military branches is big business. The scientific and military strength of the United States depends heavily on the success of a comprehensive research program.

DOD manages the research and development of all major military hardware/weapons systems. To a lesser degree, it manages scientific study in fields related to long-term national security needs. Fields of study include the engineering, environmental, biological-medical, and behavioral social sciences. DOD currently authorizes about $40 billion for research, development, test, and evaluation (RDT&E).

At the top of the Navy RDT&E organization, the Secretary of the Navy exerts policy control. The Assistant Secretary of the Navy for Research, Engineering, and Systems (ASN/RE&S) is responsible to SECNAV for management and control of Navy RDT&E matters, including monetary appropriations.

The Chief of Naval Research, who heads the Office of the Chief of Naval Research (OCNR), is a principal adviser to the ASN/RE&S. The OCNR consists of two offices: the Office of Naval Research (ONR) and the Office of Naval Technology (ONT). Responsible for the basic research programs of the Navy, ONR manages the Navy's research laboratories and ONT conducts the Navy's Exploratory Development Program.

The scope of the Navy's research programs is as broad as the Navy's working environment—from the deep ocean floor to outer space. Current and continuing long-range programs include the research of oceanography, space, advanced electronics and superconductivity, neural network computers, artificial intelligence, biotechnology, ship and aircraft design, and weapons design. Although this list could go on and on, it should give you some idea about the scope of the program.

NAVAL RESEARCH LABORATORY

The Naval Research Laboratory (NRL) at Washington, D.C., is considered to be the Navy's corporate laboratory. NRL facilities include more than 130 buildings on 129 acres of land. In their pursuit of new knowledge for the Navy and the Nation, NRL scientists use more than 15 field sites.

OCEANOGRAPHIC RESEARCH

The Navy has conducted oceanographic research since about 1946. Over the years, as the importance of this field of endeavor has grown, many segments of the government and the scientific community have become directly involved. Today, many federal agencies are involved in the Nation's oceanographic program. The oceanographer of the Navy coordinates the overall program and acts as the Navy's spokesperson on oceanography with other federal, national, and international organizations.

SHIPBUILDING

Shipbuilding begins with the ship design process. Four phases make up this process: feasibility studies, preliminary design, contract design, and detail design and construction. The process starts with a requirement for a new ship. This requirement could be for a guided-missile destroyer, a mine-hunting ship, an amphibious assault ship, or a combat logistics support ship. Feasibility studies provide alternative designs that meet the requirement. The selected alternative design is developed into the ship preliminary design. The contract design phase defines the ship performance and contractual terms so that the prospective shipbuilders can establish the cost of, and schedule for, ship construction. The shipbuilder develops the detail design used to build the ship.

The research, development, test, and evaluation program promotes the development of more capable and survivable ships at a reduced cost and with reduced manning. That is accomplished by the integration of new and emerging technologies with projected ship requirements. Test and evaluation of new projects take place in laboratories, at land-based test sites, and aboard ships. The David W. Taylor Naval Ship Research and Development Center at Bethesda, Maryland, conducts the research, development, test, and evaluation of many hull, propulsion, electrical, auxiliary, and environmental protection systems.

SURFACE WEAPONS AND WEAPONS SYSTEMS

The focal point for development of naval surface warfare weapons systems, research in ordnance technology, and support of naval strategic systems is the Naval Surface Warfare Center (NSWC). The management, technical programs, and resources of the Naval Ordnance Laboratory, White Oak, Maryland, and the Naval Weapons Laboratory, Dahlgren, Virginia, combined to form this center in 1974.

Some of the center's current programs are in the areas of surface- and air-launched missiles, fuzing, nuclear weapons effects, high-energy laser engineering, antiship missile defense, aerodynamic and hydrodynamic research, geoballistics, astronautics, and geodesy. Other capabilities include development of gun systems, torpedoes, mines, and advanced strategic weapons concepts.

Research and development activities in the weapons explosive area include the Naval

Explosives Development Engineering Department (NEDED) at the Naval Weapons Station, Yorktown, Virginia, and the Naval Ordnance Station at Indian Head, Maryland.

UNDERWATER WEAPONS AND UNDERWATER WEAPONS SYSTEMS

The Navy's main research, development, test, and evaluation activity for underwater combat systems is the Naval Underwater Systems Center (NUSC) at Newport, Rhode Island. NUSC is committed to a diversity of complex technological research programs concerning command and control systems, underwater weapons and targets, weapons launchers and tubes, underwater tracking ranges, sonar, surveillance, ocean engineering, and fleet readiness. In addition to its Newport facilities, NUSC has a major research and development laboratory complex at New London, Connecticut.

NUSC is tasked to perform research and development of torpedo-type weapons. However, the Naval Undersea Warfare Engineering Station (NUWES) at Keyport, Washington, also conducts some research and development and considerable testing and evaluation of torpedoes. In addition, NUWES, Keyport, serves as the sole proofing activity for production torpedoes. Proofing includes a series of tests that a sample of production torpedoes must pass before the torpedoes are accepted and delivered to the fleet.

NAVAL AIRCRAFT SYSTEMS

The principal field activity for the design and cradle-to-grave management of the aircraft system is the Naval Air Development Center (NADC) at Warminster, Pennsylvania. The center conducts research, development, test, and evaluation of, and life cycle support for, major naval aircraft systems. NADC was established in 1944. Its capabilities were expanded substantially in 1973 when the Naval Navigation Laboratory (NNL), formerly the Naval Strategic Systems Navigation Facility, was incorporated under NADC. Approximately 60 percent of the research and development at NNL deals with navigation for surface ships and submarines. The other 40 percent is concentrated on airborne navigational systems. NNL's current and ongoing research and development projects include ring laser gyro technology, the global positioning system, and the joint tactical information distribution system.

SHIPBOARD PERSONNEL PROTECTION

Wearing the right protective equipment is the best way for personnel to prevent injuries. Protective equipment protects personnel from weapons effects in hostile actions; from fire, smoke, and toxic effects in peacetime accidents; and from hazardous and environmental effects in the day-to-day workplace. Since the crew must be able to function under all three of these environmental conditions, wearing protective equipment limits their exposure.

The following are some items of protective equipment that have been, or are being, developed:

- The naval battle helmet, the ballistic face shield, the naval flak vest, and laser eye protection for wear during hostile actions

- The fire fighter's helmet, antiflash and antiexposure clothing, fire-retardant working clothing, and fire fighter's breathing apparatus for protection in peacetime accidents

- The auto-inflatable utility life preserver and improved clothing for both cold weather and hazardous material handling for protection against the hazardous and environmental effects in the workplace

SUMMARY

All the supporting elements of the Navy discussed in this chapter share a common thread—they all work to provide support to Navy personnel and programs.

The Civil Engineer Corps oversees the construction of our bases and facilities. The Supply Corps provides parts, equipment, and food and disburses our pay and allowances. BUMED strives to keep us healthy or return us to health if we are ill or injured. The Chaplain Corps attends to our spiritual and moral needs. The Judge Advocate General's Corps helps us with our legal problems. The Naval Security Program helps to prevent the unauthorized disclosure of our vital information. Naval Intelligence provides us with information about potential threats or enemies. And last but not least, the Research and Development Program of the Navy continues to develop and improve our equipment.

Without the services provided by these members of the Navy team, we would not be able to accomplish the mission of the Navy. Although it is the motto of the Supply Corps, "Service to the fleet" applies to all of these elements.

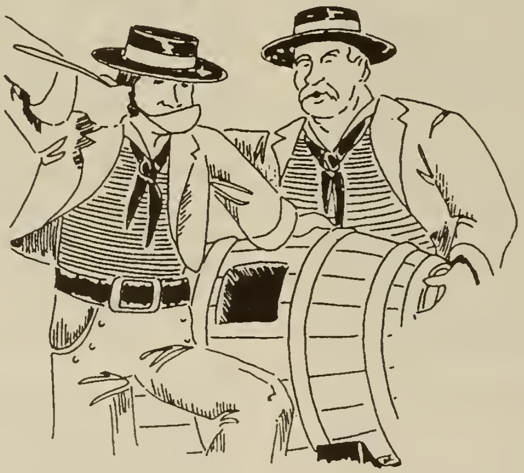
REFERENCES

"Medical Department Reorganization," *Navy Medicine* 80, no. 4 (July - August 1989): 8-9.

Navy Fact File, 8th ed., Office of Information, Washington, D.C., 1988.

SCUTTLEBUTT

THE ORIGIN OF THE WORD "SCUTTLEBUTT," WHICH IS NAUTICAL PARLANCE FOR A RUMOR, COMES FROM A COMBINATION OF "SCUTTLE," TO MAK A HOLE IN THE SHIP'S SIDE CAUSING HER TO SINK, AND "BUTT," A CASK OR HOGSHEAD USED IN THE DAYS OF WOODEN SHIPS TO HOLD DRINKING WATER; THUS THE TERM "SCUTTLEBUTT" MEANS A CASK WITH A HOLE IN IT. "SCUTTLE" DESCRIBES WHAT MOST RUMORS ACCOMPLISH, IF NOT TO THE SHIP, AT LEAST TO MORALE. "BUTT" DESCRIBES THE WATER CASK WHERE MEN NATURALLY CONGREGATED, AND THAT'S WHERE MOST RUMORS GET STARTED. THE TERMS "GALLEY YARN" AND "MESS DECK INTELLIGENCE" ALSO MEAN THE SPREADING OF RUMORS AND MANY, OF COURSE, START ON THE MESS DECK.



CHAPTER 14

UNITED STATES MARINE CORPS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe how tradition impacts on the Marine Corps.
2. Identify the primary functions of the Marine Corps.
3. Identify the organizational structure of the Marine Corps.
4. Identify the major equipment used by the Marine Corps.
5. Identify the procurement sources for Marine Corps officers.
6. Describe the professional training available to Marine Corps officers.

SIGNIFICANT DATES

10 Nov. 1775	Continental Marines (now the Marine Corps) are established.
23 Feb. 1945	The American flag is raised by Marines atop Mount Suribachi on Iwo Jima.
8 Mar. 1965	Marines land at Da Nang, South Vietnam.
23 Oct. 1983	A terrorist bomb explodes in Beirut, Lebanon, killing 241 marines.

Fighting men have been assigned to ships since the time of the Phoenicians, about five centuries before the Christian Era. The Greeks and Romans followed this practice, and later the British. Eventually, as the United States Navy started to develop, the practice continued with marines also being assigned to ships.

Our Marines have played a vital part in our nation's history, especially in times of armed conflict. First called the Continental Marines, they fought in the American Revolution. Later called the United States Marines, they have fought in World Wars and armed conflicts throughout the world. The United States Marine Corps has always been in battle when the United States has been engaged in armed conflict and is still ready to enter battle today. Although our ships no longer pull alongside an enemy vessel to send men over the side, today's marine is still required to be prepared for hand-to-hand combat.

Since 1975, Marine combat forces have participated in several operations in support of U.S. national policy. On 29 September 1982, following Israel's invasion of Lebanon, the U.S. Marines landed at Beirut, Lebanon. As part of a multinational force, the Marine Corps' mission was to oversee the evacuation of Palestinians. On 23 October 1983 a lone terrorist drove an explosive-laden truck into the headquarters of Battalion Landing Team (BLT) 1/8 at Beirut International Airport killing 241 marines and sailors. More marines died on that day than on any other since World War II.

Two days later, on 25 October, the Marines landed on the Caribbean island of Grenada. On this mission Marine forces were to rescue U.S. students who had become endangered when a communist-led coup overthrew the Grenadian government. A combined force of Marines, Army Rangers, and elements of the 82nd Airborne Division rescued 662 U.S. citizens. They also halted Communist expansion in the Caribbean—the first U.S. victory ever over a Marxist state. Battle, success, and victory have become a tradition for the United States Marine Corps.

MARINE CORPS TRADITION

The U.S. Marine Corps, perhaps to a greater degree than any other military service, shows the power of pride in tradition to unify and motivate a fighting force. Almost as soon as they become members of the organization, marines learn that traditions are as much a part of their equipment as their pack or rifle. These traditions have been growing since the Continental Marines were organized on 10 November 1775, the birth date of the Corps. Marine Corps tradition has many phases: discipline, devotion to duty, leadership, loyalty, self-sacrifice, versatility, and pride in a job well done (fig. 14-1). Reflections of Marine Corps tradition are found in the uniform, the insignia, the words of the "Marines' Hymn," and in their nicknames they have earned through the years.

The familiar emblem of the U.S. Marine Corps—the eagle, globe, and anchor (fig. 14-2)—was officially adopted in 1868. It symbolizes worldwide service in a seagoing force—the "soldiers of the sea." The spread eagle holds in its beak streamers that bear the Marine Corps motto, *Semper Fidelis* (Always Faithful), officially adopted in 1883.

The "Marines' Hymn" originated from a verse written by an unknown marine during the Mexican War. This verse, "From the Halls of Montezuma to the Shores of Tripoli," became the first verse of the hymn (fig. 14-3).

The Marine Corps march, "Semper Fidelis," was composed in 1888 by John Philip Sousa, at that time leader of the Marine Band. The band played for the first presidential inauguration in

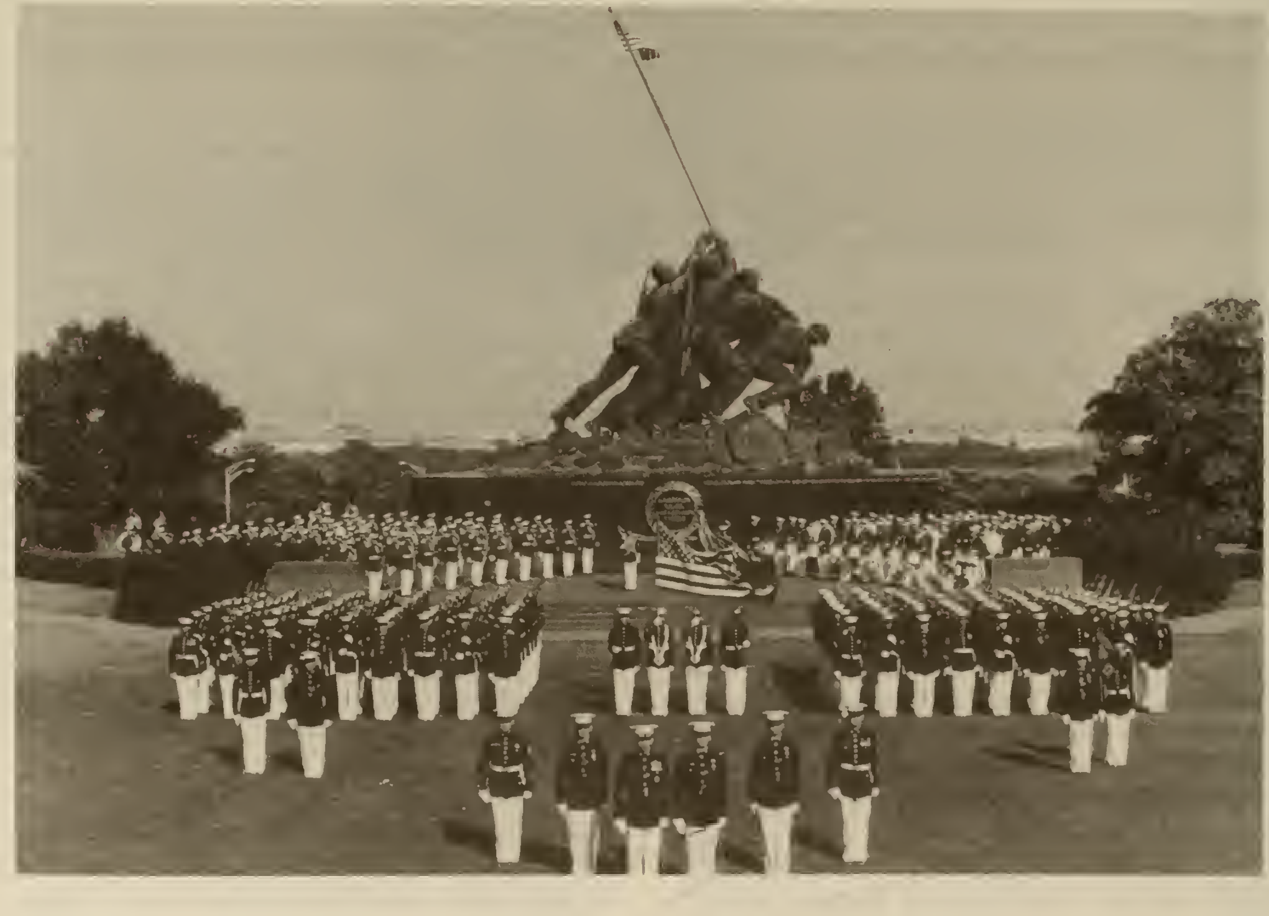


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Figure 14-1.—The marines of Marine Barracks 8th and I, "the oldest post of the Corps," on parade at the Marine Corps War Memorial, Arlington, Virginia. Rugged in combat, U.S. Marines on parade present the perfect example of proper military bearing.

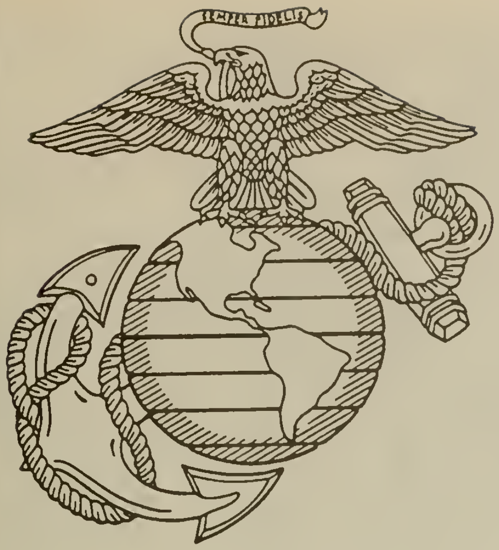

Figure 14-2.—Emblem of the U.S. Marine Corps.

Washington in 1801. It became known as "the President's own" during the early years of the 19th century, a title it holds today.

Back when marines wore leather stocks or collars to protect themselves from the slash of an enemy sword or cutlass, they were given the nickname *leatherneck*. During World War I, after the fourth Marine brigade distinguished itself during action at Belleau Wood, the Germans were said to have referred to the marines as *teufelshunden* (devil dogs).

MARINE CORPS FUNCTION

The primary functions of the Marine Corps are as follows:

- To organize, train, equip, and provide Fleet Marine Forces, together with supporting air components, for service with the Navy fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign
- To provide detachments and organizations for service on armed vessels of the Navy
- To provide security detachments for the protection of naval property at naval stations and bases
- To develop doctrines, tactics, techniques, and equipment employed by landing forces in amphibious operations
- To develop the doctrines and procedures for joint amphibious operations

The National Security Act of 1947 established the roles and missions of the United States Marine Corps. Today the Marine Corps stands ready to carry out a wide variety of missions that higher authority may assign. In addition to deploying forces for amphibious operations, Marines train foreign military forces and provide security for diplomatic posts worldwide.

MARINE CORPS ORGANIZATION

The U.S. Marine Corps consists of not less than three combat divisions and three aircraft wings, and such land combat, aviation, and other services as necessary to support them.

The Commandant of the Marine Corps (CMC) is a Chief of Service and a permanent member of the Joint Chiefs of Staff. The CMC is responsible for the administration, discipline, internal organization, training, efficiency, readiness, and total performance of the Marine Corps. The CMC also has responsibility for the operation of the Marine Corps' material support system. When performing these functions, the Commandant is responsible directly to the Secretary of the Navy; the CMC is not a part of the command structure of the Chief of Naval Operations (CNO). A close cooperative relationship exists, however, between the CNO, as the senior military officer of the Department of the Navy, and the CMC.

FLEET MARINE FORCE (FMF)

The Fleet Marine Force (FMF), which has been in existence since 1933, comprises the main fighting strength of Marines assigned to the operating forces of the Navy. The FMF includes all air and ground tactical units of the Marine Corps. It is organized into two commands: Fleet Marine Force Atlantic and Fleet Marine Force Pacific.

The primary mission of the FMF is to conduct overseas amphibious operations for the seizure and defense of advanced bases as part of a naval campaign. The nature of this mission, therefore, requires that the FMF maintain a very high state

"From the Halls of Montezuma . . ." General Quitman leads his battered battalion of Marines into Mexico City on 14 September 1847, ending the Mexican War with American victory. The red strip on the trousers of the Marine dress uniform commemorates the blood shed in the desperate fight at Chapultepec on the previous day.

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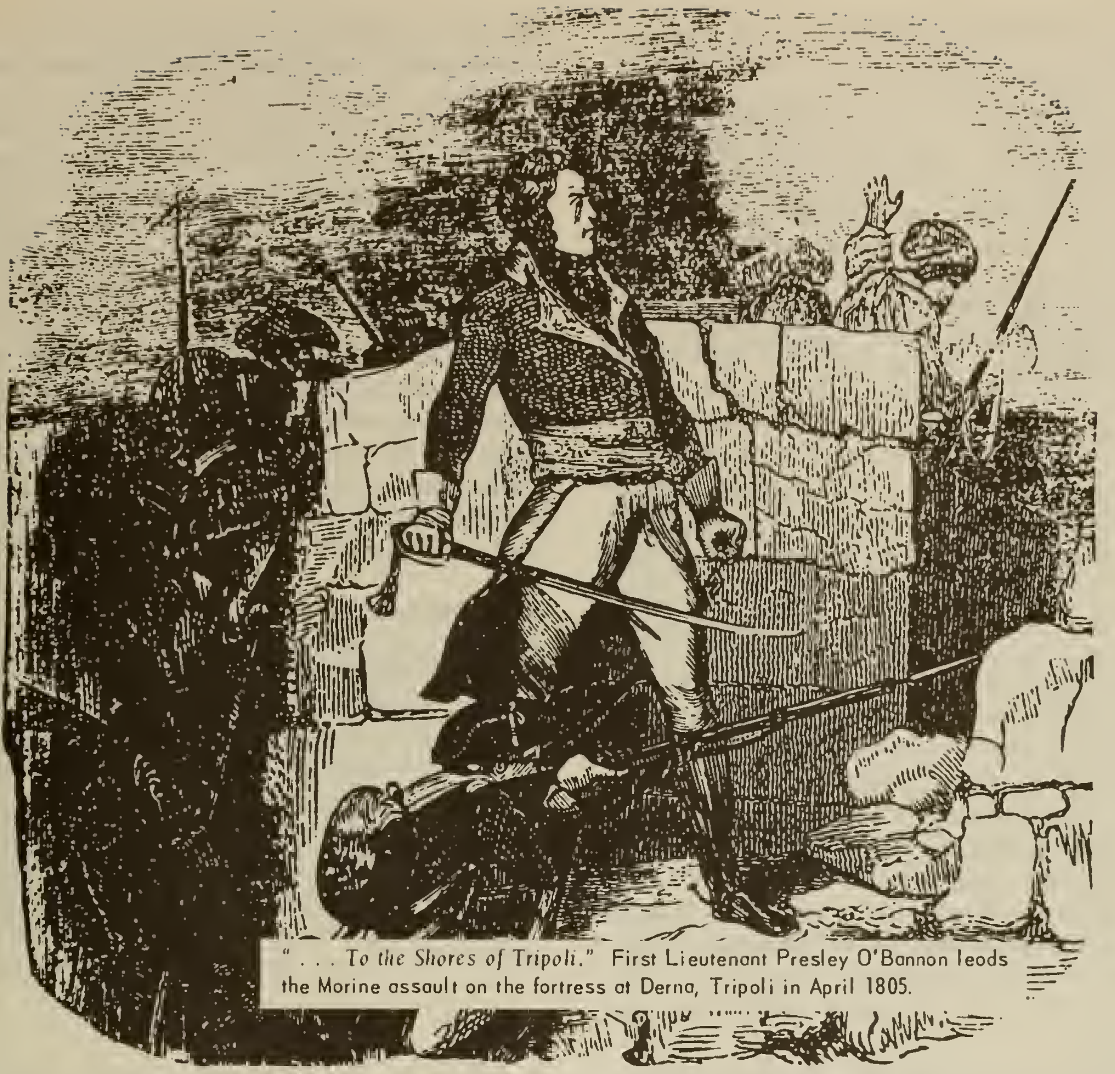
Figure 14-3.—The first lines of the "Marines' Hymn," "From the Halls of Montezuma to the Shores of Tripoli," commemorate, in reverse chronological order, the accomplishments of the Marine Corps in the Mexican War . . .

of readiness. Its units—which include infantry, artillery, armor, communications, engineering, logistics troops, and aviation organizations—must be completely mobile. The FMF is the nation's premier force-in-readiness for all levels of conflict throughout the world.

Marine forces within each FMF are task-organized into Marine air-ground task forces (MAGTFs) for deployment worldwide. The MAGTF combines air and ground combat forces in a highly mobile amphibious strike force under a single commander. All MAGTFs include three elements: a ground combat element, an aviation combat element, and a combat service support element. MAGTFs are task-organized around the ground combat element—a battalion, regimental, or division landing team—which may vary in size. For example, the Marine expeditionary unit (MEU) numbers 1,800 marines, while the Marine expeditionary brigade (MEB) may number 16,500 and the Marine expeditionary force (MEF) may number 35,000.

In late 1985 the 26th Marine amphibious unit (MAU) was the first MAGTF designated special-operations capable (SOC). (The amphibious [MAU] designator changed to expeditionary [MEU] in 1988 to reflect a broader scope in missions.) Currently, all MEUs that deploy as landing forces with the Sixth and Seventh fleets are designated SOC. These special capabilities include short-notice amphibious raids, evacuation of noncombatants, search and rescue operations, and in-extremis hostage rescue. Forward-deployed MEU SOCs provide the national command authority with on-scene forces that can respond rapidly to terrorist incidents and other crises worldwide.



" . . . To the Shores of Tripoli." First Lieutenant Presley O'Bannon leads the Marine assault on the fortress at Derna, Tripoli in April 1805.

Figure 14-3.—(Continued) . . . and in the war with Barbary Powers. An official version of the Hymn was issued in 1929.

Marine Division

The Marine Division is the basic ground organization of the FMF. Organized as a combined arms team, it includes service units needed for sustained combat. A division consists of three infantry regiments; an artillery regiment; a headquarters battalion with service, motor transport, military police, and communications capabilities; a reconnaissance battalion; a tank battalion; a light armored infantry battalion; a combat engineer battalion; and an assault amphibian battalion. Each infantry regiment is composed of three infantry battalions. An infantry battalion, the basic tactical unit of the division, contains four rifle companies, a weapons company, and a headquarters and service company. Rifle companies are further divided into three platoons, each with three squads of three fire teams, and a weapons platoon.

Marine Aircraft Wing

The Marine aircraft wing (MAW) is the highest-level tactical aviation command in the FMF. Its structure makes it capable of providing all types of air support required in tactical air operations. Each of the existing wings, although varying in size, is a balanced combat force task-organized into various aircraft groups. These groups are composed of squadrons, which provide aircraft, support equipment, and personnel required to perform assigned missions. Each wing has a variety of aircraft—attack, fighter attack, reconnaissance, electronic countermeasures, transport, and rotary wing. Depending on the model of the aircraft assigned, a squadron will have from 10 to 24 aircraft.

Force Service Support Group (FSSG)

The force service support group (FSSG) provides sustained combat service support for the Marine Division and other force level units. Each FSSG contains eight battalions that provide all combat-service support functions beyond the inherent capability of other FMF units. The FSSG is structured to support either a one-division/wing-configured MEF, two MEBs simultaneously, or four MEUs simultaneously.

Marine Corps Reserve

Ready to increase the manpower combat strength of the Marine Corps by one-third in a matter of weeks is the 4th Marine Division/Wing Team of the Selected Marine Corps Reserve. This force is organized, equipped, and trained in the same manner as the Regular Fleet Marine Forces. Depending on the combat situation, 4th Marine Division/Wing units are capable of either augmenting Regular FMF units or deploying as a separate division/wing team.

The Selected Marine Corps Reserve totals slightly over 40,000 marines in both ground and aviation units. Additionally, Individual Ready Reservists (IRR) consist of more than 52,000 officers and enlisted marines not assigned to units. IRRs are trained and prepared to fill out both Active and Reserve organizations in an emergency.

Training programs for Reserve Marines include realistic air-ground training one weekend a month and 2 weeks each summer. During the latter period, Reserve and Regular units train together frequently, engaging in exercises that simulate their roles in combat.

WOMEN MARINES

During World War I, 305 women reservists served in clerical jobs in order to free male marines to fight in France. In February 1943 the Marine Corps again called on women so that men could be released for combat. By June 1944 the authorized quota of 18,000 enlisted women marines had been met and approximately 800 women Marine officers had been trained and assigned.

Unlike World War I women marines, World War II women reservists performed over 200 different military assignments, serving at every major post and station in the United States and Hawaii. By July 1946 all women reservists became eligible for discharge. They had performed well in answering the Corps' call to "free a man to fight."

By Act of Congress on 12 June 1948, authority was given to enlist women in the Regular Marine Corps. Soon thereafter a women's officer training detachment was set up at Quantico, Virginia, and the 3rd Recruit Training Battalion was activated at Parris Island for training women recruits.

Today women marines are an integral part of the Regular Marine Corps, providing a nucleus that can expand rapidly in the event of mobilization. Women marines serve in all noncombat fields and are assigned to every major post and station of the Marine Corps.

MARINE CORPS EQUIPMENT

The Marine Corps' heavy equipment includes tanks, amphibians, light armored vehicles, artillery, missiles, and aircraft. During the 1980s, equipment modernization programs across the entire spectrum of combat arms have brought dramatic improvement in the Marine Corps' fighting capability. Major improvements include the AV-8B Harrier, the vertical/short takeoff and landing (V/STOL) aircraft, and the light armored vehicle (LAV).

TANKS

The Marine Corps' main battle tank is the M-60 medium tank. Its armament includes a 105-mm gun, a 7.62-mm machine gun, and a .50-caliber machine gun. The M-60 tank weighs 53 tons and can travel at speeds up to 30 miles per hour. It can climb 60-percent grades, scale 3-foot-high obstacles, ford 8-foot-deep streams, and cross 8 1/2-foot-deep ditches.

AMPHIBIOUS ASSAULT VEHICLES (AAVs)

The Marine Corps' current amphibious assault vehicle (AAV) is the LVTP-7 (landing vehicle, tracked, personnel). It can carry either 25 combat-equipped marines or 5 tons of supplies in the amphibious assault. It can travel at speeds up to 8.4 knots in water or 40 miles per hour on land. The LVTP-7 can climb 60-percent grades, breech 3-foot-high obstacles, and traverse 8-foot-wide ditches.

Other versions of AAVs include the LVTC-7 (command) and LVTR-7 (recovery). The LVTC-7 provides command and control during ship-to-shore and subsequent operations. The LVTR-7 provides mobile repair and retrieval facilities for disabled vehicles.

ARTILLERY

Marine artillery weapons consist of towed and self-propelled howitzers and self-propelled guns.

The M198 155-mm towed howitzer is the standard artillery weapon of the Marine Corps. Mounted on a wheeled carriage, it fires a 97-pound high-explosive (HE) shell to an effective range of 22,000 meters (30,000 meters with a rocket-assisted projectile). It can also fire white phosphorous, illumination, smoke, antitank and antipersonnel mines, laser-guided, chemical, and nuclear rounds. The CH-53E helicopter transports the M198.

The Vietnam-era 105-mm howitzer remains in service with selected Regular and Reserve units. Mounted on a wheeled carriage, it fires a 33-pound HE shell to an effective range of 11,400 meters. It can also fire white phosphorous, illumination, smoke, and "beehive" (tiny darts used for repelling human-wave attacks) rounds.

The 155-mm self-propelled howitzer is mounted on a tank-like body propelled by tracks. It fires a 97-pound HE shell to a maximum effective range of 18,000 meters (24,000 meters with a rocket-assisted projectile).

The 8-inch, self-propelled howitzer is the Marine Corps' most accurate artillery piece. It fires a 200-pound HE round to an effective range of about 22,000 meters (28,000 meters with a rocket-assisted projectile).

LIGHT ARMORED VEHICLES (LAVs)

The Marine Corps began receiving LAVs in the early 1980s. Currently, the Marine Corps has three light armored infantry battalions. One is stationed at Camp Lejeune, North Carolina, one at Camp Pendleton, California, and the other is deployed in the Western Pacific (WESTPAC). The LAV can travel more than 70 miles per hour. It contains mortar; air defense; tube-launched, optically-tracked, wire-command (link-guided) TOW missiles; and 25-mm chain gun variants.

MISSILES

In addition to conventional ground weapons, Marines have light antiaircraft missile (LAAM) battalions. These battalions are organized and equipped to provide air defense for a Marine landing force. The LAAM battalion is equipped with Hawk surface-to-air missiles, medium- and low-altitude acquisition radar, and fire control radar. These weapons systems provide defense against low- and medium-altitude air attacks (fig. 14-4).

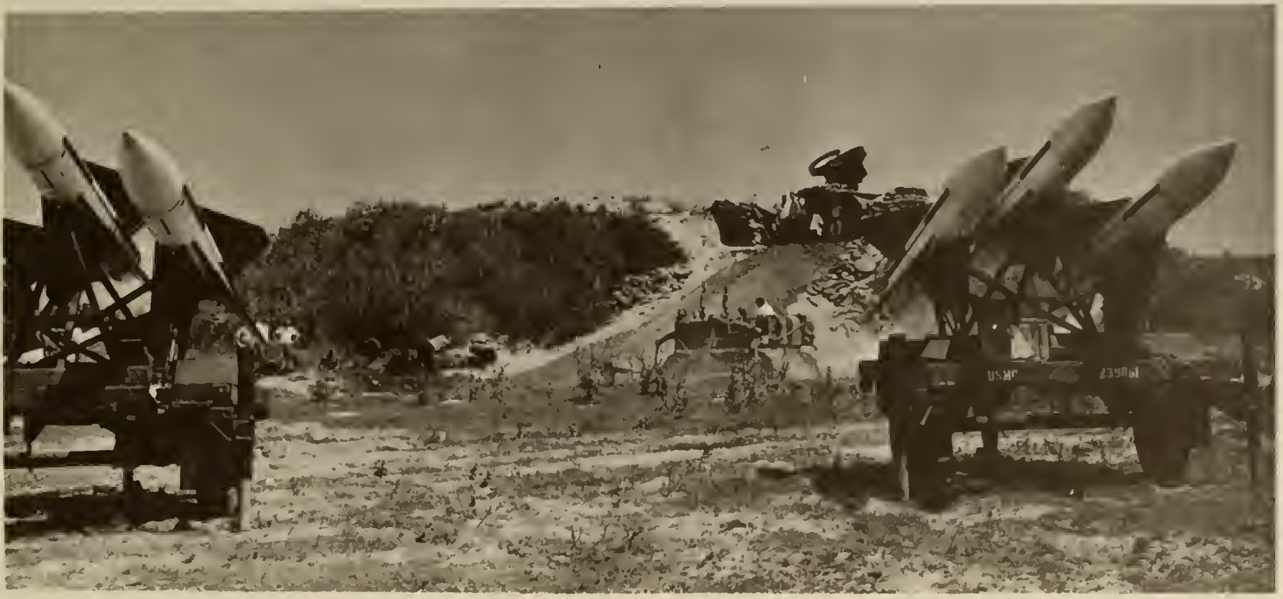


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Figure 14-4.—In addition to conventional weapons, Marines use surface-to-air missiles for ground defense.

AIRCRAFT

Marine rotary-wing units include Marine attack helicopter (HMA) squadrons; light (HML), medium (HMM), and heavy helicopter transport (HMH) squadrons; and experimental/special mission helicopter (HMX) squadrons. Marine fixed-wing units include Marine attack (VMA), all-weather attack (VHA[AW]), fighter/attack (VMFA), tactical electronic warfare (VMAQ), tactical reconnaissance (VMFP), aerial refueler/transport (VMGR), and observation (VMO) squadrons.

Marine helicopters include the UH-1N Iroquois, AH-1T/W Cobra, CH-46 Sea Knight, and CH-53E Sea Stallion. The Sea Stallion, the largest military helicopter in the free world, has a lift capability of more than 32,000 pounds.

Marine fixed-wing aircraft include the F/A-18 Hornet, A-6 Intruder, A-4 Skyhawk, AV-8B Harrier (fig. 14-5), EA-6B Prowler, RF-4 Phantom, OV-10 Bronco, and the KC-130 Hercules. All Marine aircraft, except the Hercules, can operate from aircraft carriers and expeditionary airfields ashore. Helicopters and Harriers can also operate from amphibious ships.

MARINE CORPS OFFICERS

The Marine Corps has officer procurement programs similar to those of the Navy. They are based on provisions of federal statutes as issued by instructions from the Secretary of the Navy and the Commandant of the Marine Corps. Candidates for appointment to a commissioned grade in the Marine Corps and Marine Corps Reserve must be citizens of the United States. They must be mentally, morally, physically, and professionally qualified and at least 20 years of age. Naval aviator candidates must not be over 27 1/2 years of age, and ground officer (exclusive of limited duty officer and warrant officer) candidates must not be over 28 years of age.

NAVAL ACADEMY

The Secretary of the Navy allots to the Regular Marine Corps each year a quota (16.6 percent at present) from the current graduating class of the Naval Academy. Upon graduation, members whose applications for commission in the Marine Corp have been approved by the Superintendent of the Naval Academy fill this quota. Applicants who were formerly enlisted in the Marine Corps

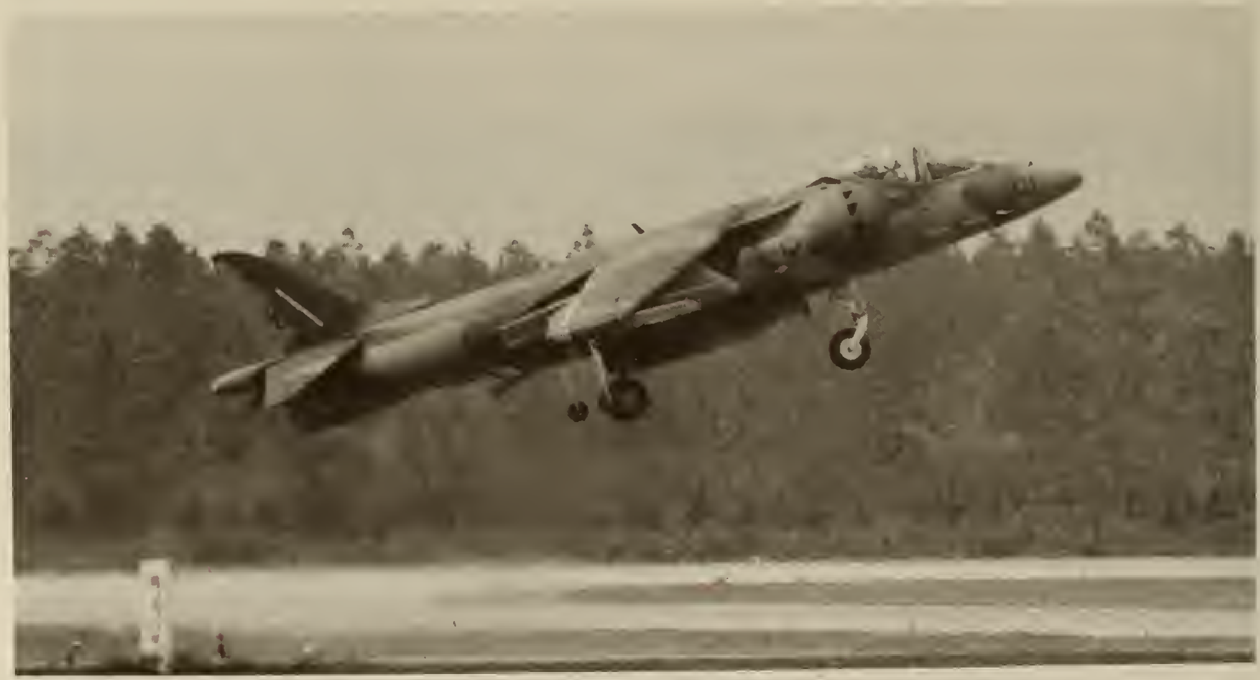

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Figure 14-5.—The single-engine, single-seat AV-8B Harrier, used for light attack and close air support for ground forces, executing a vertical takeoff.

or Marine Corps Reserve and those who are sons or daughters of career Marines receive appointment preference.

NAVAL RESERVE OFFICER TRAINING CORPS (NROTC) PROGRAM

At the beginning of their sophomore year of college, selected NROTC midshipmen may elect the Marine option. This option allows the midshipmen to pursue specialized courses during their last 2 years of college. Between the third and fourth years, Marine option personnel attend training at Officer Candidate School (OCS), Quantico, Virginia. Upon successful completion of their college course of study, naval science courses, and training at OCS, the midshipman is appointed a second lieutenant in the Marine Corps or Marine Corps Reserve. (For a general discussion of the NROTC Program, see chapter 10.)

PLATOON LEADERS PROGRAM

The Platoon Leaders Program is a Marine Corps officer program for college students attending regionally accredited colleges. Upon successful completion of all requirements, they are commissioned as second lieutenants in the Marine Corps Reserve.

OFFICER CANDIDATES CLASS

This Marine officer program is open to college seniors and graduates. Candidates undergo 10 weeks of precommissioning training, followed by appointment to commissioned grade. Aviation and law options are available to males; law options are available to females.

MARINE CORPS ENLISTED COMMISSIONING EDUCATION PROGRAM (MECEP)

This program is open to all qualified active-duty enlisted marines enrolled in an undergraduate program leading to a baccalaureate degree. A regular commission is awarded upon graduation.

Noncommissioned officers of the Marine Corps whose service has been meritorious may be appointed to commissioned grade in the Marine Corps Reserve. They must be serving in the Marine Corps and be recommended by their commanding officer. They also must have established their mental fitness by attaining an educational level prescribed by the Commandant of the Marine Corps.

WARRANT OFFICER

Sergeants and above, with a minimum of 5 and a maximum of 14 years of enlisted service, may apply for appointment to the grade of warrant officer, W-1, in the Marine Corps and Marine Corps Reserve. Selections provide for advancement to warrant rank in certain administration and technical fields for marines who display exceptional proficiency and leadership potential.

LIMITED DUTY OFFICERS

Permanent warrant officers, W-2 through W-4, may be appointed to commissioned grades for limited duty in the technical field in which they are proficient. They first must have completed at least 10 and not more than 20 years of active service.

OFFICER TRAINING

The Marine Corps University at Quantico, Virginia, is the principal media through which Marine officers receive their formal education. Upon entry into the Marine Corps, all second lieutenants are sent to Basic School (fig. 14-6) for indoctrination and instruction in fundamental military subjects. Emphasis is placed on individual and crew-served infantry weapons instruction. Other subjects include marksmanship, small-unit tactics, basic administration, naval law, and small-unit leadership. Following graduation from Basic School, most officers attend a follow-on school in their military occupational specialty (MOS) before being assigned duty with the Fleet Marine Force.

Once officers complete initial FMF and non-FMF tours, they become eligible for assignment to the Amphibious Warfare School at Quantico or to another Marine or Army career-level school. Career-level instruction focuses on training Marine captains for company-level command and staff duties at the MEB level. Particular emphasis is placed on teaching the coordinated employment of air, naval, and ground elements in amphibious operations.

When promoted to major, Marine officers become eligible for assignment to the Marine Corps Command and Staff College. The purpose

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Figure 14-6.—The Basic School at Quantico, Virginia, teaches new lieutenants tactics, weapons, and leadership. They spend approximately half of their training time in the field, learning combat tactics and techniques.

of this course is to train officers in command and staff duties at the MEF level. The course extends over a period of 9 months. It includes instruction in the theory and nature of war, operational art, strategic concepts, Marine air ground task force (MAGTF) operations, and joint operations.

Throughout their careers, Marine officers are afforded a progressive military education that includes formal schooling, command-sponsored schooling, and professional self-study. In addition to Marine Corps schools, officers may attend other service top-level schools, such as the Armed Forces Staff College, Army War College, Naval War College, Air War College, or the National Defense University.

SUMMARY

Since the Marine Corps' top priority is combat readiness, it emphasizes physical fitness and intensive training. Its traditional peacetime role is to serve as a force-in-readiness. The Marine Corps has a global outlook; therefore, Marines stand ready to be deployed to any part of the world to carry out their assigned missions.

Through its traditions and training, the United States Marine Corps is always ready to fight for freedom and, as the motto goes, "Semper Fidelis."

REFERENCES

United States Department of Defense, *Functions of the Department of Defense and Its Major Components*, DoD Directive 5100.1, Office of the Secretary of Defense, Washington, D.C., 1987.

The United States Government Manual 1989/90, Office of the Federal Register, National Archives and Records Administration, Washington, D.C., 1989.

SUGGESTED READING

Estes, K.W., *The Marine Officer's Guide*, 5th ed., Naval Institute Press, Annapolis, Md., 1985.

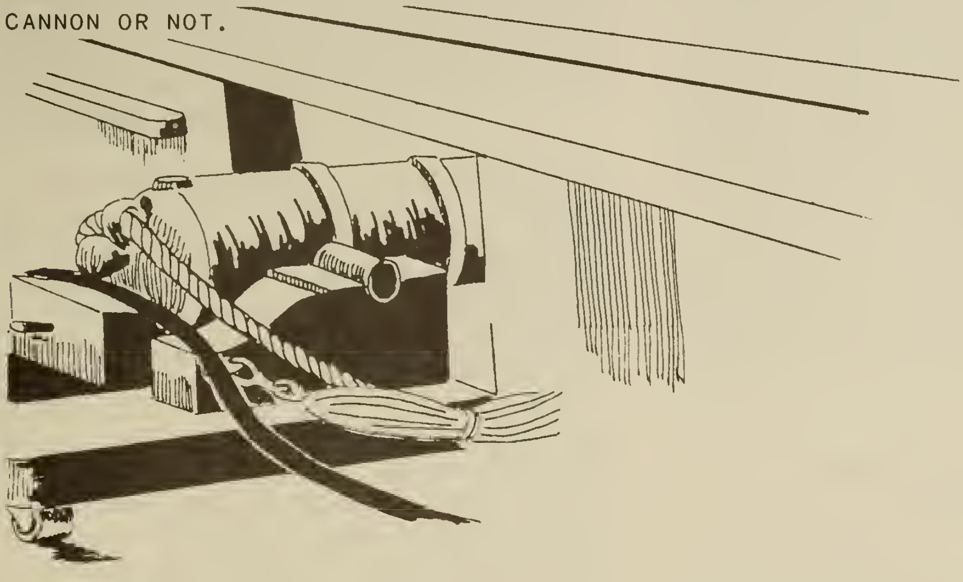
Krulak, V.H., *First to Fight: An Inside View of the Marine Corps*, Naval Institute Press, Annapolis, Md., 1984.

PORTHOLES

SOMETIMES, NOVICE SEAMEN WILL ASK, "HOW COME HOLES ON THE STARBOARD SIDE ARE CALLED PORTHOLES INSTEAD OF STARBOARDHOLES?" MANY OLD SALTS ARE READY WITH EXPLANATIONS, BUT ACTUALLY THE NAME "PORTHOLE" HAS NOTHING TO DO WITH ITS LOCATION. THE WORD ORIGINATED DURING THE REIGN OF HENRY VI OF ENGLAND (1485). IT SEEMS THE GOOD KING INSISTED ON MOUNTING GUNS TOO LARGE FOR HIS SHIPS, AND THEREFORE THE CONVENTIONAL METHODS OF SECURING THE WEAPONS ON THE FORECASTLE AND AFTCASTLE COULD NOT BE USED.

A FRENCH SHIPBUILDER NAMED JAMES BAKER WAS COMMISSIONED TO SOLVE THE PROBLEM. AND SOLVE IT HE DID BY PIERCING THE SHIP'S SIDES SO THE CANNON COULD BE MOUNTED INSIDE THE FORE AND AFTER CASTLES.

THE FRENCH WORD "PORTE," MEANING DOOR, WAS USED TO DESIGNATE THE REVOLUTIONARY INVENTION. "PORTE" WAS ANGLICIZED TO "PORT" AND LATER CORRUPTED TO PORTHOLE. EVENTUALLY, IT CAME TO MEAN ANY OPENING IN A SHIP'S SIDE WHETHER FOR CANNON OR NOT.



CHAPTER 15

THE NAVAL RESERVE

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the historical foundation of the Naval Reserve.
2. Identify the mission of the Naval Reserve.
3. Identify the various categories of naval reservists and Naval Reserve units.
4. Describe the training program of the Naval Reserve.
5. Describe the requirements for retirement from the Naval Reserve.

During times of peace our Active Forces are sufficient to maintain national defense. During armed conflict, however, additional trained forces are required to increase the Active Fleet. For such occasions, the Naval Reserve is ready.

The United States operates on a total force policy. The total force includes all resources available to perform the national defense missions. It includes the Active and Reserve (National Guard and Reserve) component forces; civilians; and in some contingency plans, appropriate forces of our allies.

The total force within the Navy encompasses all assets, including active-duty members and the ships and aircraft that make up the fleet. It also includes the Reserve Force and hardware that will increase the fleet and shore establishments in a national emergency or contingency. Since Naval Reserve strength is directly related to the Navy's inventory of ships, aircraft, and support equipment, it is fully integrated into force strength planning. Reservists are full partners in the naval establishment with a meaningful role. They serve as a source to whom the Active Navy can turn quickly for added manpower and hardware. Each reservist has the opportunity to make a real contribution to the Navy's mission.

HISTORY OF THE NAVAL RESERVE

The first use of a Reserve source of naval manpower took place in 1888 when Massachusetts organized a naval battalion as part of the state militia. By 1897 a total of 16 states had organized naval units as part of their state militia. Officers and men from these organizations served with the Regular Navy during the Spanish-American War.

The state militia organizations sought assistance from the federal government. Agreeing that the states should receive aid, Congress approved legislation establishing a federal Naval Reserve on 3 March 1915. However, not until 19 August 1916, with the prospect of World War I, was the Naval Reserve Force formally organized.

At the end of World War I, 330,000 Naval Reserve officers and personnel were on active duty. By the end of World War II, over three-fourths of the 3,220,000 persons on active duty in the Navy were members of the Naval Reserve.

MISSION OF THE NAVAL RESERVE

The Naval Reserve's primary mission is to provide trained personnel to supplement the Active Force in war, national emergency, or when otherwise needed. Its secondary mission is to help the Active Force accomplish its peacetime mission by serving as a byproduct or an adjunct of training.

The Navy has many early mobilization requirements. It must immediately add aircraft and special units to the Active Forces and more ships to the fleet. It must increase its peacetime personnel strength to wartime complement. In addition, it must increase fleet support and shore-based activities and indoctrinate and train newly procured officers and enlisted personnel. Although the nation may reactivate ships of the Reserve Fleet, doing so requires too much time in the appraisal of early mobilization requirements.

The Reserve Forces maintain a large portion of the Navy's mission capability. For example, they are, in some cases, more skilled in riverine warfare, mobile inshore undersea warfare, and the use of minesweepers. Personnel of the Naval Reserve provide the capability for quick mobilization of the Navy.

Those men and women who volunteer for military service in the Naval Reserve assume an 8-year military obligation. They may fulfill this obligation on either active or inactive duty or divide their obligation between the two. The exact combination of active duty and inactive duty depends upon the plan under which the individual entered the Navy.

Current enlistment programs call for a specified period of active duty with the remainder of the 8-year obligation served in a Reserve status. For example, the Active Mariner Enlistment Program requires 3 years' active duty followed by 5 years' Reserve obligation.

COMPOSITION OF THE NAVAL RESERVE

The size, composition, and deployment requirements of the military forces at any given time depend on this nation's posture and goals in a constantly changing world. The Ready Reserve of the armed forces provides an economical way to provide people who are trained to supplement the Active Forces. Currently, federal law limits the Ready Reserve of the armed forces to not more than 2,900,000 officers and enlisted personnel. Within this total, the Navy is authorized a Ready Reserve of 530,000; presently, over 230,000 personnel serve in the Ready Reserve of the Navy.

Naval reservists fall into one of three general categories—Ready Reserve, Standby Reserve, or Retired Reserve.

READY RESERVE

The Ready Reserve consists of the Selected Reserve and the Individual Ready Reserve. The Ready Reserve includes those members, not on active duty, who are subject to call to Active service. They may be called to Active service if the President declares a national emergency, Congress declares war, or when otherwise authorized by law. Members of the Ready Reserve are expected to be available for active duty immediately upon receiving orders. However, they are allowed a reasonable time between the date they are alerted or ordered to active duty and the date they must report for duty.

Participation or nonparticipation in a drilling program has no effect on the liability of Ready reservists for recall—all are equally liable. Under the current partial mobilization concept, however, those participating in Selected Reserve units are more likely to receive involuntary orders to active duty than other reservists. Enlisted members serving voluntarily in the Ready Reserve must volunteer for a specific period. Officers execute Ready Reserve Agreements for an indefinite length of time.

Of the three Reserve categories, only members of the Ready Reserve may receive pay for participation in Reserve training.

Selected Reserve

Within the Ready Reserve the Navy maintains Selected Reserve Forces. The units and individuals within the Selected Reserve are so essential to initial wartime missions that they require a high degree of mobilization readiness. Therefore, they must take part in active-duty training and annual training in a pay status.

As the initial and primary source of Active Fleet augmentation, the Selected Reserve is immediately deployable upon mobilization. It must, therefore, be continuously combat ready and immediately responsible in times of crisis.

Individual Ready Reserve (IRR)

The Individual Ready Reserve (IRR) consists of those members of the Ready Reserve who are not in the Selected Reserve. Limitation of available pay billets, absence of drilling units within commuting distance, conflicting employment, and other factors prevent some reservists from participating in the Selected Reserve. Therefore, reservists affected by any of these factors are assigned to the IRR.

While assigned to the IRR, members can still participate in the Naval Reserve training program. Correspondence courses are available to both officer and enlisted personnel. These reservists also remain within the Navy's mobilization potential. Additionally, within the limitation of funds, personnel in the IRR who have maintained an Active status may participate in 12 to 14 days of active-duty training annually.

STANDBY RESERVE

The Standby Reserve consists of reservists who have transferred from the Ready Reserve after fulfilling certain requirements established by law. Ready and Standby status differ mainly in the degree of liability for recall to active duty. Standby reservists can be ordered to active duty without their consent only in the event of war or an emergency declared by Congress or when otherwise authorized by law. The Navy cannot recall a Standby reservist to active duty involuntarily until the Director of the Selective Service has determined the person's availability for duty.

The Standby Reserve includes the Standby Reserve-Active and the Standby Reserve-Inactive.

Standby Reserve-Active

The Standby Reserve-Active consists of reservists who have completed their active-duty or Selected Reserve service obligation. They have requested transfer to the Active status list of the Standby Reserve. Officers with at least 18 but less than 20 years' satisfactory federal service toward retired pay for nonregular service can also request transfer to the Standby Reserve-Active. Additionally, key federal employees and personnel expecting to return to the Ready Reserve but facing temporary personal hardships may request assignment to the Standby Reserve-Active.

Standby Reserve-Inactive

The Standby Reserve-Inactive (also called the Inactive Status List or ISL) includes three groups of reservists who have been screened from the Ready Reserve. The first consists of those who did not maintain a satisfactory level of participation. The second consists of those who allowed their Ready Reserve agreement to expire while in this status. The third consists of those who fit into both the first and second group. While in this Inactive status, a member may not participate in training programs, earn retirement points, or be considered for promotion. Reservists transferred to the Standby Reserve-Inactive may apply for reinstatement in the Ready Reserve at any time within the following 3 years. Those members not voluntarily returning to a Ready Reserve status at the end of 3 years are discharged or transferred to a retired status, as appropriate.

Members on the Inactive Status List may be called to active duty under the same conditions as other members of the Standby Reserve. However, a determination must first be made that adequate numbers of qualified personnel in an Active status (Ready and Standby Reserve-Active) are not available.

RETIRED RESERVE

The Retired Reserve-Inactive (USNR-RET) consists of reservists who are drawing retired pay or are qualified for retired pay upon reaching age 60. It also includes those who are not eligible for retired pay at any time but desire service or other requirements for voluntary assignment to the Retired Reserve in recognition of their contribution to their country and the United States Navy. Their liability for Active service is the same as that for the Standby Reserve.

UNIT CLASSIFICATIONS

Selected Reserve units are grouped into three basic categories, each with its own mission and mobilization element. These primary categories are supplemented by other Selected Reserve units and individuals of the Ready Reserve.

In some instances units of the three primary categories are unable to fill all authorized mobilization billets because of a lack of required skills within their particular geographic locations. Additional units are organized in these areas when the necessary skills are available. These additional units provide a source of Selected reservists for immediate mobilization to increase the three primary categories. Upon mobilization, they join with Selected Reserve units from other locations at the appropriate mobilization site.

In addition to the units of the Selected Reserve, volunteer units provide meaningful and productive training. These units train qualified Ready reservists who are required for full mobilization but who are not members of the Selected Reserve. These personnel remain affiliated with the Naval Reserve in an Active capacity and are available for recall under public law. Volunteer units train in a nonpay status and serve as a skill resource from which billets in the Selected Reserve can be filled.

Category I

Category I units are those with organic equipment. Each is a self-contained unit designed to provide complete capabilities upon recall; that is, a ship, squadron, or battalion. Selected reservists fill all manpower requirements but may be combined, as in many instances, with an active-duty nucleus. Each unit has its own hardware, which it "owns and lives with," or will use predesignated hardware upon recall. Hardware required varies from weapons systems, ships, and aircraft to equipment and tools necessary for mission performance.

Category II

Category II units are augmentee units for Active Navy ships, squadrons, and mobile units. They are mission-oriented, task-performing augmentation units with a mix of specific skills. Each unit has specific skills needed to bring an active-duty Navy operating platform (a ship or aircraft squadron) up to organizational (battle) manning or full complement. A Category II unit, tailored to a specific ship class or aircraft squadron type, operates equipment and uses facilities of the parent unit.

Category III

Category III units are augmentee units for the Shore Establishment. These units, similar in character to Category II, represent the mobilization billets needed to meet Shore Establishment organizational manning requirements. Category III activities are geographically fixed rather than mobile units. Each is tailored to strengthen a specific type of nonplatform activity, such as a shipyard, air station, or staff. Category III units normally operate the equipment and use the facilities of the mobilization activity. The requirements of this category are as equally important in the accomplishment of the wartime mission as are the combat requirements.

RESERVE TRAINING

The Selected Reserve receives ongoing training throughout the year. The nature of the training depends on each reservist's individual designator/rating and job skill. It also depends on the type of unit to which the member is attached. Training takes place during unit drills and while the reservist is performing active duty for annual training (AT). A drill is a period of training authorized for inactive-duty reservists, in either a pay or nonpay status.

Members of the Selected Reserve normally perform 48 drills each year. Each "drill" consists of a 4-hour period. For most units, regularly scheduled drills are conducted one weekend per month. This multiple drill permits a greater concentration of effort and extended involvement. In some instances, drilling only one evening a week better serves the unit's mission or configuration.

Certain units are scheduled for inactive-duty travel training (IDTT). During IDTT, members receive training at fleet training sites or aboard ship.

Selected individuals and units may perform additional paid drills to maintain peak efficiency or to complete their assigned mission, or both. For example, flight crews and certain critical units often require additional drills. The number of regularly scheduled or additional paid drills may vary with need and the availability of funds.

Although not members of the Selected Reserve, Ready reservists in the IRR category and members of the Standby Reserve-Active may volunteer to participate in regularly scheduled drills. Although such members are ineligible for drill pay, they may earn retirement points by taking an active part in these drills.

ACTIVE DUTY FOR ANNUAL TRAINING (AT)

The careful coordination of AT with drilling sessions provides members of the Selected Reserve with practical experience that clarifies or supplements other instruction. On some occasions, reservists may train on Active Fleet ships for a weekend, or, in some cases for 2 weeks or more. Reservists may receive this shipboard training as an entire unit, as a team from a unit, or on an individual basis.

All members of the Selected Reserve must receive a minimum of 12 to 14 days of annual training. Members of the IRR may be assigned

AT on a voluntary basis. Annual training for an entire Selected Reserve unit is an ideal goal, although it is not always possible. When the members of an entire unit train together, it enhances their ability to perform the unit's assigned mission.

While serving on AT, Reserve units receive training and practical experience to maintain skills at Active Fleet standards. Unit, team, and individual readiness are emphasized. Important team skills may be developed through combined exercises that involve Reserve and Active air, surface, and subsurface groups in underway operational problems and exercises.

Aviation Reserve squadrons designated to mobilize with their aircraft normally perform their annual training at a fleet base. The fleet base is under the cognizance of the fleet commander to whom the squadrons report when mobilized. During this period Reserve squadrons receive a modified fleet operational readiness inspection.

In addition to AT, all aviation squadrons periodically participate in fleet operational exercises alongside their Regular Navy counterparts. Special AT is granted for this purpose. This integration with fleet units combines training with actual support of fleet activities by permitting Reserve squadrons to participate in surveillance patrols and other routine operations.

In addition to AT aboard ships, many possibilities exist for training ashore. Many stations ashore offer reservists practical experience or study of new procedures through formal instruction.

When required to perform AT, reservists receive full pay and allowances plus travel expenses. When performing AT on a voluntary basis, reservists may or may not receive pay, travel, and allowances, depending on available funds. However, members in the Standby Reserve-Active category perform all AT without pay or other allowances.

SURFACE PROGRAMS

Reserve surface programs include both afloat and ashore programs and training systems development. Afloat and ashore programs consist of the three categories of Ready Reserve units discussed earlier as well as volunteer units.

The afloat program includes units assigned to surface combatants, submarines, and service forces. It also includes units assigned to mine warfare, amphibious warfare, and inshore undersea warfare missions.

The ashore organization includes construction forces as well as cargo-handling, supply, medical, dental, and security groups. It also includes units involved in telecommunications, law, public affairs, and other specialties.

Naval Reserve centers serve as the primary training sites for most of the surface Reserve. Naval Reserve units may use these activities entirely for themselves or share them with other military services.

Active-duty officers and enlisted personnel serve in full-time active-duty assignments at each Reserve center. The enlisted personnel support the various training programs and maintain the Reserve centers. They work in cooperation with officers and petty officers of the individual drilling units to help them carry out the training of their own units.

The centers maintain equipment for training in various areas (e.g., shops, radio, gunnery, damage control). They are adding a new dimension to the surface training environment through the installation of shipboard simulators (SBSs). These trainers simulate various shipboard functions (command and control, bridge, damage control, engineering, and communications) aboard several different ship types. Working closely with the Chief of Naval Education and Training, surface Reserve planners are continually upgrading the training capabilities of the Reserve centers.

A continuing challenge to the surface Reserve program has been geographic distance of inland units from fleet installations. Therefore, in addition to improving on-site training, the Navy and Air Force airlift reservists to their key training platforms for inactive-duty travel training (IDTT).

Surface planners, along with the Chief of Naval Operations (CNO) and elements of the Active Fleet, are identifying and developing new and expanded missions for the Naval Reserve. The purpose of these missions is to complement total force requirements. The twin goals of the surface Reserve programs are readiness and responsibility. In meeting these goals, the surface Reserve will be a full and equal partner with the Active Forces in the defense of this nation.

NAVAL AIR RESERVE FORCE PROGRAM

The Naval Air Reserve Force is responsible for providing mission-capable, task-performing units available for immediate mobilization and deployment. It is an operating command of the Chief of Naval Operations under the direction of Commander Naval Air Reserve Force. The Air Program's sponsor, representative, and technical manager is the Deputy Chief of Naval Operations for Air Warfare. If full or partial mobilization were required, the CNO would assign wings, squadrons, and units as needed to various Active Fleet-type commanders. Each wing, squadron, or unit would then become an integral part of its command.

Air Reserve squadrons normally operate their own assigned aircraft and equipment. They are a striking example of the hardware-oriented type of Reserve the total force Navy requires. Squadrons are, for the most part, equipped with combat-deployable, fleet-compatible aircraft. A continuing program ensures units are re-equipped and retrained to meet current fleet requirements consistent with mission objectives and budgetary constraints.

The mission, complexity of equipment, and inherent problems in the operation and use of systems used by the Naval Air Reserve Force require extensive and continuous training. To reach and maintain a high state of readiness, the Reserve Force provides training at naval air stations, facilities, and satellite activities (Naval Air Reserve Units and Centers) throughout the United States.

RETIREMENT POINT CREDIT

To qualify for retired pay, a member of the Reserve Forces must be credited with at least 50 retirement points a year for 20 years. The total number of points earned is a factor in the computation of retirement pay. If otherwise eligible, the member may begin drawing retirement pay at age 60.

Earning 35 retirement points per year satisfies the requirement for retirement credit because a reservist is allowed 15 gratuitous points for maintaining an Active status. The reservist earns 1 retirement point for each day of Active service whether it is extended active duty or annual training. When not on active duty, the reservist receives 1 retirement point for each completed drill. The reservist may earn additional points by completing approved correspondence courses prepared by the Naval Education and Training Program Management Support Activity, other Navy sources, or the other armed forces. Members receive an appropriate number of retirement points for each course. When not on extended active duty, the member may receive a maximum of 60 points per year retirement credit plus those received for annual training.

SUMMARY

The Naval Reserve is a full partner with the Active Forces. The existence of task-oriented, mission-capable units has made the Naval Reserve a vital and contributing participant in the defense of the nation.

As a byproduct of their training, naval reservists are capable of serving side by side with their active-duty counterparts in direct support of the fleet. This unprecedented degree of integration has developed a healthy feeling of mutual support.

Such mutual support encompasses most mission areas. This integration is also a preferred method of training, since tasks performed during peacetime are similar to those expected at the outbreak of hostilities. Perhaps equally important is the satisfaction reservists get from training duty.

Today the total partnership between the Navy and the Naval Reserve has made the total force concept a reality. In the years ahead the Naval Reserve will absorb additional responsibilities. Therefore, its major challenge will be to recruit, train, and retain the numbers and types of reservists necessary to fulfill its expanding role.

Once it meets that challenge, the result is predictable—a ready force.

REFERENCES

Navy Fact File, 8th ed., Office of Information, Washington, D.C., 1988.

SUGGESTED READING

Administrative Procedures for Naval Reservists on Inactive Duty, BUPERSINST 1001.39, Bureau of Naval Personnel, Washington, D.C., 1989.

Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

HORSE LATITUDES

THE WORDS OF SAMUEL TAYLOR COLERIDGE "IDLE AS A PAINTED SHIP UPON A PAINTED OCEAN" WELL DESCRIBE A SAILING SHIP'S SITUATION WHEN IT ENTERED THE HORSE LATITUDES. LOCATED NEAR THE WEST INDIES BETWEEN 30 AND 40 DEGREES NORTH LATITUDE, THESE WATERS WERE NOTED FOR UNFAVORABLE WINDS THAT BECALMED CATTLE SHIPS HEADING FROM EUROPE TO AMERICA.

OFTEN SHIPS CARRYING HORSES WOULD HAVE TO CAST SEVERAL OVERBOARD TO CONSERVE DRINKING WATER FOR THE REST AS THE SHIP RODE OUT THE UNFAVORABLE WINDS. BECAUSE SO MANY HORSES AND OTHER CATTLE WERE TOSSED TO THE SEA, THE AREA CAME TO BE KNOWN AS THE "HORSE LATITUDES."

CHAPTER 16

SHIPBOARD ORGANIZATION

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the authority of the commanding officer aboard Navy ships.
2. Describe the duties of the executive officer aboard Navy ships.
3. Identify the various departments aboard most Navy ships and the duties of each department.
4. Identify the role of the department head and the division officer in the chain of command.
5. Identify the various conditions of readiness.
6. Identify the purpose of the watch, quarter, and station bill.
7. Describe the purpose and contents of the ship's deck log.
8. Describe the purpose and contents of the engineering log.

The theory of ship's organization is that ships should operate in peacetime with an organization that can be expanded quickly without basic change when required by wartime operating conditions. A warship's manning consists of officers and enlisted personnel required to enable the ship to fight the most efficiently. This theory requires that the ships group the functions and personnel to minimize the overlapping of responsibilities and duplication of personnel within the command.

The ship manning document and the *Standard Organization and Regulations of the U.S. Navy* (OPNAVINST 3120.32B) provide guidance in the preparation of the standard ship's organization for all types of ships.

COMMANDING OFFICER

The commanding officer (CO) has many varied but specific duties. They are so specific that *Navy Regulations* devotes one entire chapter, consisting of nearly 90 articles, to the duties of the commanding officer. In general, the CO is responsible for the safety, well-being, and efficiency of the command.

The commanding officer's responsibilities include the safe navigation of the ship, condition and appearance of material and personnel, stationing of trained lookouts, and preparation of the ship for battle. COs may delegate authority in these matters, but such delegation does not relieve them of responsibility. The officer of the deck (OOD), for example, has the authority to run the ship; but if the ship has a collision, the CO and the OOD are both held responsible.

The commanding officer must exert every effort to maintain the command in a state of maximum effectiveness for war. The CO issues directions to the executive officer (XO). The XO, with the assistance of the various department heads, prepares and conducts the exercises and drills required to prepare the ship for battle.

During combat, the CO directs the ship to engage the enemy and fight to the best of its ability until the action is complete. The commanding officer's battle station is located in a position from which the CO can best direct the action. In case of the loss of the ship, both custom and regulations require the commanding officer to ensure personnel complete abandon ship procedures. All personnel should be off the ship before the commanding officer leaves the ship.

For centuries, the commanding officer has had complete authoritative power. With ultimate responsibility for the ship and everything pertaining to it, the CO obviously requires the authority to go with it. The CO must have the power to enforce prompt obedience to orders to maintain efficiency and discipline. As set forth in the *Uniform Code of Military Justice* (*UCMJ*), the commanding officer has the power to impose limited punishment. This power to impose punishment is a part of command and may not be delegated.

The commanding officer shoulders constant concern for the welfare, morale, and living conditions of the crew. The CO receives help in these areas from an enlisted adviser known as the command master chief (CM/C), command senior chief (CS/C), or command chief (CCh). A master chief detailed by the Bureau of Naval Personnel to the command or a master chief, senior chief, or chief petty officer appointed by the CO, as appropriate, serves as the senior enlisted adviser. This person has direct access to the commanding officer. In addition, the enlisted adviser maintains contact with the master chief petty officer of the Navy (MCPON), normally through the force or fleet master chief (FM/C), to ensure that ideas and recommendations are properly transmitted.

If the commanding officer is absent, disabled, relieved from duty, or detached without relief, the next senior line officer eligible for command at sea attached to and aboard the ship assumes command. In most cases, that person will be the executive officer (XO).

EXECUTIVE OFFICER (XO)

As the next ranking line officer aboard ship, the executive officer serves as the aide or ‘‘executive’’ to the commanding officer. As such, the XO is the direct representative of the commanding officer in maintaining the general efficiency of the ship. With the assistance of the heads of departments, the XO arranges and coordinates all ship's work, drills, exercises, personnel organization, and the policing and inspection of the ship.

The XO investigates matters affecting the discipline and conduct of the crew and makes recommendations concerning these matters to the commanding officer. The XO usually approves or disapproves liberty lists and leave requests. If the XO is unable to carry out the duties of the office, the next senior line officer assigned to the ship normally assumes the duties.

When the crew reports that the ship is cleared for action, the XO inspects it and receives readiness reports from the various department heads. After confirming the ship's readiness, the XO then reports to the commanding officer that the ship is ready for action.

If the captain is disabled, the immediate superior in command of the ship (squadron or group commander) designates the XO as the acting CO until a permanent commanding officer can be assigned. For this reason, the XO's battle station, determined by the captain, is located some distance from the captain's—a safety measure to prevent disablement of both officers at the same time. After each battle, the executive officer makes a detailed report to the commanding officer.

Depending on the size of the ship, the XO may have one or more assistants. Other officers are often assigned to this billet as a collateral duty.

Chapter 3 of *Standard Organization and Regulations of the U.S. Navy* (*SORN*) lists additional duties of the XO.

SHIPBOARD DEPARTMENTS

The shipboard departmental organization shown in table 16-1 includes the most common types of naval ships currently in service. Each particular ship type uses this table to determine the departments that must be included in its administrative organization. Variations should occur only in exceptional circumstances. Most ships have five basic shipboard departments: navigation, operations, weapons (or deck), engineering, and supply. The Chief of Naval Operations authorizes the establishment of other departments as necessary.

The ship type determines the number of departments included in a shipboard organization. Departments are grouped together as either command or support departments. Except in isolated instances, a line officer eligible to exercise command in the event of the loss of superior officers heads a command department. In aircraft carriers, naval aviators head the operations and air departments.

Table 16-1.—Shipboard Departmental Organization

SHIP TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	EXECUTIVE/ ADMINISTRATION	NAVIGATION	OPERATIONS	WEAPONS	DECK	COMBAT SYSTEMS	AIR	AIMD	COMMUNICATIONS	ENGINEERING	SAFETY	SUPPLY 6	MEDICAL	DENTAL	WEAPONS REPAIR	REPAIR	LEGAL 7	CHAPLAIN	DEEP SUBMERGENCE
LCC	X	X	X		X				X	X		X	X	X					
LHA/LHD	X	X	X		X	X	X	X	X	X	X	X	X	X					
LKA	X	X	X		X					X		X	X						
LPD	X	X	X		X		X			X		X	X	X					
LPH	X	X	X	X			X	X	X	X	X	X	X	X					
LSD	X	X	X		X					X		X	X	X^2					
LST	X	X	X		X					X		X	X						
BB	X^8	X	X	X	X		X^1		X	X		X	X	X			X	X	
CV/CVN	X^8	X	X	X	X		X	X	X	X^5	X	X	X	X			X	X	
CG/CGN	X	X	X	X^3		X^3	X^1		X	X		X	X	X					
DD/DDG	X	X	X	X^3		X^3	X^1			X		X	X						
FF/FFG	X	X	X	X^3		X^3	X^1			X		X	X						
MCM/MSH/MSO	X		X		X					X									
PHM						X				X									
AD	X	X	X		X				X	X	X	X	X	X	X	X	X		
AE	X	X	X		X		X^1			X		X	X						
AFS	X	X	X		X		X^1			X		X	X						
AGF	X	X	X		X				X	X		X	X	X					
AO	X	X	X		X					X		X	X						
AOE	X	X	X		X		X^1			X		X	X						
AOR	X	X	X		X		X^1			X		X	X						
AR		X	X		X					X	X	X	X	X		X			
ARS	X	X	X		X					X		X							
AS	X		X		X					X	X	X	X	X	X	X	X		
ASR	X	X	X		X					X		X							X^4
ATF	X	X	X		X					X		X							
ATS	X	X	X		X					X		X							
AVT	X^8	X	X		X		X		X	X	X	X	X	X					

NOTES:

1. ON LAMPS/VERTREP HELO DETACHMENT SHIPS ONLY.
2. ON CGN 9/LSD 41 CLASSES ONLY.
3. CG 26, CG 47, CGN 25, CGN 36, CGN 38, DD 963, DDG-51, DDG 993, AND FFG 7 CLASS SHIPS ARE REQUIRED TO HAVE A COMBAT SYSTEMS DEPARTMENT VICE A WEAPONS DEPARTMENT.
4. ASR 21 CLASS ONLY.
5. NUCLEAR POWERED CARRIERS WILL ALSO HAVE A REACTOR DEPARTMENT.
6. ON SMALL SHIPS WHEN A LINE OFFICER ASSUMES SUPPLY OFFICER DUTIES, HE/SHE SHALL BECOME A DEPARTMENT HEAD.
7. ON SHIPS WITH A JUDGE ADVOCATE ASSIGNED THERE SHALL BE A LEGAL DEPARTMENT.
8. IN BB/CV/CVN/AVT THERE IS AN ADMINISTRATION DEPARTMENT.

WEAPONS, DECK, OR COMBAT SYSTEMS DEPARTMENT

Ships whose mission is to attack using ordnance (gun batteries, torpedoes, missiles, and so forth) have a weapons department headed by a weapons officer. Some surface combatants with complete combat systems and some classes of submarines have a combat systems department headed by a combat systems officer. Ships whose offensive capabilities are not primarily related to ordnance have a deck department headed by a first lieutenant. Aircraft carriers and some other ships have a weapons or combat systems department in addition to a deck department.

The weapons or combat systems officer is responsible for the operation, care, and maintenance of the ship's armament and the weapons fire-control equipment. The department head is also responsible for the care, handling, stowage, accountability, and issue of ammunition and pyrotechnics; the maintenance of magazines; and the external security of the ship.

If the ship does not have an air department, the weapons or combat systems department is responsible for the launching and recovery of assigned aircraft.

If the ship does not have a deck department, the weapons department is responsible for the preservation and cleanliness of the external areas of the ship not assigned to other departments. It is also responsible for the operations of the paint, sail, and boatswains' lockers; the inspection and maintenance of survival equipment; all deck seamanship operations; and the care and use of deck equipment.

If the ship has a deck department but not a weapons or combat systems department, the first lieutenant (head of the deck department) is responsible for the functions just described. For ships that have a combat systems department but not a deck department, the deck functions described are the responsibility of the operations department.

OPERATIONS DEPARTMENT

The operations department is made up of the divisions needed to carry out various tasks. These tasks include collecting and evaluating combat and operational information, conducting electronic warfare, gathering and analyzing intelligence information, repairing electronic equipment, controlling aircraft, and forecasting weather. The operations department is usually in charge of all the radar, sonar, and communications equipment on the ship. The combat information center (CIC) is part of the operations department.

On some larger ships, the communications functions, equipment, and systems may be a separate department.

ENGINEERING DEPARTMENT

The engineer officer is responsible for the operation, care, and maintenance of all propulsion and auxiliary machinery. The department head is also responsible for the control of damage resulting from fire, explosion, collision, and so forth. The engineering department provides power, lights, ventilation, heat, refrigeration, compressed air, and fresh water throughout the ship.

The engineer officer may be assigned several assistants, such as the main propulsion assistant, damage control assistant, and electrical officer.

SUPPLY DEPARTMENT

Among other responsibilities, the supply department is charged with the proper operation of the general mess, including preparing and serving food. The supply department operates the ship's store, which provides personal articles for the well-being of the ship's crew, and the clothing and small stores issue room, which provides uniform items. The supply department includes the disbursing officer, who maintains the pay records of the crew. The supply department also is responsible for all the ordering and receiving of general stores, supplies, spare parts, and equipment for the ship; that is, just about everything that comes aboard the ship.

NAVIGATION DEPARTMENT

The navigator is responsible for the safe navigation and piloting of the ship. The navigator is also responsible for the operation, care, and maintenance of navigation equipment, charts, publications, and records.

MEDICAL/DENTAL DEPARTMENT

The medical department is responsible for maintaining the health of personnel of the command.

In addition to furnishing medical care and treatment to ship's personnel, the medical department conducts routine inspections to ascertain the sanitary conditions of certain spaces. It inspects the ship's messing, food service, living, berthing, and working spaces.

The medical department is also responsible for the dental care and oral health of the ship's personnel. Normally, if no dental officer is assigned on board, the medical department simply maintains the dental records of the crew. In the event of a dental emergency, the medical department provides temporary treatment until the member can be sent to a dental facility. To ensure the prevention and control of dental diseases and maintain dental hygiene within the command, the medical department schedules periodic dental examinations for all crew members.

Some larger ships have dental officers and separate medical and dental departments.

AIR DEPARTMENT

On ships having aircraft, the air department is responsible for aircraft handling, both on the flight deck and the hangar deck. The department is also responsible for aviation fuels and aviation administration. On aircraft carriers, the air department also has responsibility for the catapults and arresting gear. Personnel assigned to the air department also maintain the aircraft towing gear and flight deck fire-fighting gear.

If an air wing is attached to the command, it brings its own technicians and mechanics to maintain the wing's aircraft.

During flight operations, the air department head, "the air boss," controls the operations from the primary flight control tower (pri-fly).

FUNCTIONAL ORGANIZATION

Much planning coupled with over 200 years of experience has helped to mold the functional organization of our Navy. One of the key links in this organization is the chain of command. We have described the roles of the commanding officer; the executive officer; and in chapter 4, the division officer. We have also described the functions of the various shipboard departments. But how do the department heads and division officers fit into this functional organization?

The head of a department represents the commanding officer in all matters that pertain to that department. A department head is responsible for and reports to the commanding officer the operational readiness of the department, the general condition of equipment, and any other matters relating to the department. The department head is also responsible for the administrative matters within the department. The department head customarily keeps the executive officer informed about all departmental matters reported to the commanding officer.

Division officers are responsible to and, in general, act as assistants to department heads. The division officer is a major link in the ship's chain of command, particularly aboard a small ship. At the working level, the division officer carries out the policies of the command and ensures the division completes assigned tasks in a timely manner.

The division officer makes frequent inspections of personnel, spaces, equipment, and supplies assigned to the division. The division officer maintains copies of all bills and orders for the division and posts those that should be posted in conspicuous places. The division officer has the responsibility for training personnel in the division and preparing them for battle. Just as the department head reports to the executive officer and the commanding officer, the division officer reports to the department head.

Ship's personnel must function as a well-coordinated team. In addition to using the chain of command, each ship maintains several guides to help ensure this coordination. These guides include the *Standard Organization and Regulations of the U.S. Navy*; a battle organization manual; and a watch, quarter, and station bill. These guides detail, for that particular ship, the assignment and duties of officers and enlisted personnel. For units under the ship manning document (SMD) or the squadron manning document (SQMD), the SMD or SQMD, as applicable, also serves as a battle organization manual and battle bill.

For commanding officers to prepare their ships to fight to the best of their abilities, ships must have a special organization and system of communications for battle conditions. These are set forth in the battle organization manual. This document contains four chapters describing the battle organization, conditions of readiness, battle bill, and interior communications systems.

CONDITIONS OF READINESS

Several different conditions of readiness have been established for battle or simulated war. The condition of readiness in effect depends on the anticipated danger. Navy ships observe the following conditions of readiness:

- CONDITION I—The maximum state of readiness for battle, with the entire crew at battle stations prepared for imminent action. This condition, also called general quarters (GQ), is often set for drills as well.
- CONDITION IAS—A variation of CONDITION I designed to meet the threat of submarine attack.
- CONDITION IE—Provides temporary relaxation of CONDITION I to enable personnel to rest on stations and to permit designated personnel to draw and distribute action meals at their action stations.
- CONDITION II—A special watch applicable to gunfire support ships for situations such as extended periods of shore bombardment.
- CONDITION III—The normal wartime cruising condition when surprise attack is possible. Part of the armament is manned and ready for immediate action.
- CONDITION IV—Provides effective ship and aircraft control during peacetime cruising.
- CONDITION V—Under this condition the ship is in port with no armament manned.

WATCH, QUARTER, AND STATION BILL

Each division officer is responsible for maintaining a watch, quarter, and station bill based on the ship's battle bill and the *Standard Organization and Regulations of the U.S. Navy.* The watch, quarter, and station bill shows each person's name, rate, billet number, and bunk number. In addition, it shows each person's battle station; watches during Conditions I, II, and III; station or duty assignments in case of an emergency, such as fire or man overboard; at-sea and in-port watch stations; and the cleaning station.

LOGS

Each ship in commission maintains a ship's deck log and an engineering log. Each ship also maintains an engineer's bell book as an adjunct to those logs.

Persons who keep the logs make no erasures in these records. Only those persons required to sign the record for the watch may make corrections, additions, or changes. Persons who keep the logs make changes requested by commanding officers only if the persons consider them correct; otherwise, commanding officers enter over the persons' signature such remarks as they deem appropriate.

Ship's Deck Log

The ship's deck log is a complete daily record, by watches. It contains a description of every circumstance and occurrence of importance or interest about the crew and the operation and safety of the ship. It also contains a description of any circumstance or occurrence of possible historical value. The navigator has overall responsibility for preparation and care of the ship's deck log. The type of information noted in the log includes data such as the ship's operating orders; its courses, speeds, and positions; and the state of the sea and weather. It also includes information about damage or accidents to the ship or its cargo, deaths or injuries to personnel, and changes in the status of ship's personnel or passengers. The log also contains records of meetings or adjourning of courts-martial and other formal boards. The log contains reports of all routine inspections, which serves as a record of whether or not such inspections were made. OPNAVINST 3100.7B prescribes the manner and form in which the navigator should prepare the log.

The ship's deck log serves as a chronological record of the events occurring during each watch. It provides necessary information to the commanding officer and ultimately serves as a historical document. Accuracy in describing events recorded in a ship's deck log is essential. Such entries often constitute important legal evidence in judicial and administrative fact-finding proceedings arising from incidents involving the ship or its personnel.

Engineering Log

The engineering log is a daily record, by watches, of important events and data about the engineering department and the operation of the ship's propulsion plant. The Commander, Naval Sea Systems Command, prescribes the manner and form of preparation of the log.

Engineer's Bell Book

The engineer's bell book is a chronological record of orders pertaining to the speed of the engines. The book contains a record of orders affecting each shaft. It shows the time of receipt of each order to change the propeller speed, the meaning of the order, and the revolutions per minute resulting from action taken in obedience to that order.

SUMMARY

The structure of our shipboard organization allows ships to operate safely and effectively. Seldom do ships operate in exactly the same manner, but all classes of ships have the same basic organization. As new ships and new technologies are developed, our organizational structure will be adjusted to operate them efficiently.

One thing that will never change, however, is the chain of command. Someone will always be ultimately responsible for the operation of the ship: the commanding officer. Likewise, someone will always be assigned to assist the commanding officer: the executive officer. Department heads and division officers will also be assigned areas of responsibility.

While names and titles may change, the function of the chain of command will remain the same on naval ships. It will continue to ensure organization aboard the ship, which contributes to the accomplishment of its mission.

REFERENCES

Standard Organization and Regulations of the U.S. Navy, OPNAVINST 3120.32B, Department of the Navy, Office of the Chief of Naval Operations, Washington, D.C., 1986.

SUGGESTED READING

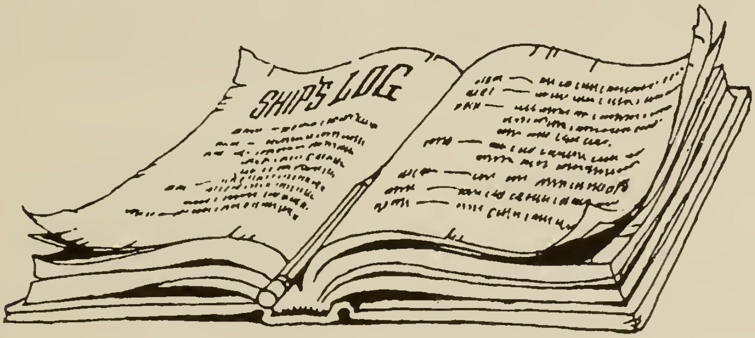
Lee, David M., J.M. Brown, R. Morabito, H.S. Colenda, *Watch Officer's Guide*, 12th ed., Naval Institute Press, Annapolis, Md., 1986.

Mack, W.P., and T.D. Paulsen, *The Naval Officer's Guide*, 9th ed., Naval Institute Press, Annapolis, Md., 1983.

Noel, J.V., *Division Officer's Guide*, 8th ed., Naval Institute Press, Annapolis, Md., 1986.

LOG BOOK

TODAY ANY BOUND RECORD KEPT ON A DAILY BASIS ABOARD SHIP IS CALLED A "LOG." ORIGINALLY, RECORDS WERE KEPT ON THE SAILING SHIPS BY INSCRIBING INFORMATION ONTO SHINGLES CUT FROM LOGS AND HINGED SO THEY OPENED LIKE BOOKS. WHEN PAPER BECAME MORE READILY AVAILABLE, "LOG BOOKS" WERE MANUFACTURED FROM PAPER AND BOUND. SHINGLES WERE RELEGATED TO NAVAL MUSEUMS-BUT THE SLANG TERM STUCK.



CHAPTER 17

SHIP DESIGN AND ENGINEERING

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the major components of a ship's structure.
2. Describe the use and identification of compartments of a ship.
3. Describe the conventional steam turbine propulsion plant.
4. Describe the diesel propulsion plant.
5. Describe the gas turbine propulsion plant.
6. Describe the nuclear propulsion plant.
7. Describe the damage control organization on Navy ships.
8. Identify the types of fires and their primary extinguishing agents.
9. Describe the importance of preventive damage control.

SIGNIFICANT DATES

17 Apr. 1866	$5,000 appropriated by Congress to test the use of petroleum oil as fuel for ships' boilers.
9 Nov. 1880	First steam-powered ship to circle globe, USS *Ticonderoga*, ends cruise begun on 7 Dec. 1878.
18 Dec. 1929	First use of a ship (USS *Lexington*) to furnish electrical power for a major city takes place at Tacoma, Washington, when that city suffers a power failure.
17 Jan. 1955	World's first atomic submarine, USS *Nautilus*, sweeps into Long Island Sound at start of maiden voyage, signaling back to New London, Connecticut, "Underway on nuclear power . . ."

Looking at two different types of Navy ships, you might notice several differences. Upon closer comparison, however, you might also notice many similarities. All use compartmentation to increase their ability to remain afloat in case they suffer damage. All use some type of propulsion plant and provide their own electrical power. They also use similar damage control equipment and procedures.

In this chapter we will look at some of the similarities and differences of Navy ships. We will also give a brief overview of the various types of propulsion plants used by these ships. Lastly, we will look at one of the most important areas shipboard personnel have to deal with—damage control.

SHIP'S BASIC STRUCTURE

The major components of a ship's structure include the plating, keel, framing, bulkheads, and decks. Each plays a part in creating a ship from a mass of steel.

PLATING

A ship is structurally a box girder. Shell plating forms the sides and bottom of the box girder, and the weather deck forms the top. The point where the weather deck (main and forecastle decks) and the side plating meet is called the deck edge or gunwale (pronounced gun-ul). The location where the bottom plating and the side plating meet is called the bilge. Usually the bottom is rounded into the side of the ship to some degree; this rounding is called the turn of the bilge.

Most merchant ships, aircraft carriers, and auxiliary ships have a boxlike midship section with vertical sides and a flat bottom, as shown in figure 17-1. High-speed ships such as destroyers and cruisers, however, have rising bottoms and broad, rounded bilges. This shape is partially, although not entirely, responsible for the high speed of these ships.

Individual shell plates are usually rectangular in shape; the short sides are referred to as the ends, and the long sides are called edges. End joints are known as butts and edge joints as seams. Plates are joined together at the butts to form long strips of plating running lengthwise; these fore-and-aft rows of plating are called strakes. The uppermost side strake, at the gunwale, is known as the sheer strake. It is thicker than most strakes since it must withstand high stresses at these corners as the ship bends over wave crests. The outer weather-deck strake, known as the stringer strake, also contributes to the strength of the hull. The shell plating, together with the weather deck, forms the watertight envelope of the ship. The internal structural members of the hull reinforce the watertight capacity of the hull.

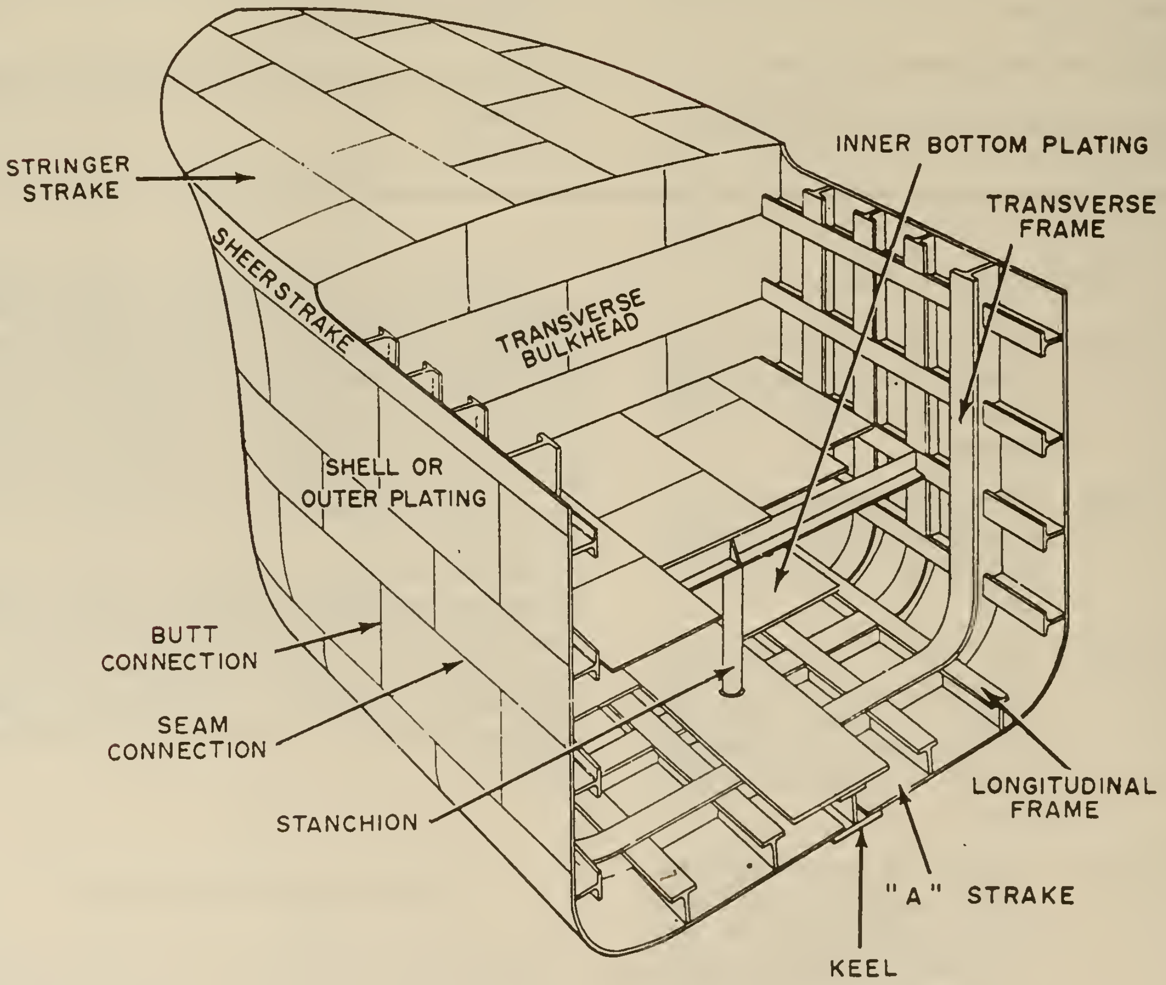

STRINGER STRAKE
SHEERSTRAKE
TRANSVERSE BULKHEAD
INNER BOTTOM PLATING
TRANSVERSE FRAME
SHELL OR OUTER PLATING
BUTT CONNECTION
SEAM CONNECTION
STANCHION
LONGITUDINAL FRAME
"A" STRAKE
KEEL

Figure 17-1.—The ship's basic structure.

KEEL

Another structural member of a ship is the keel, which runs the length of the ship's bottom from the stem to the stern post. It acts as a backbone, performing a function similar to that of the human spine. The keel of a metal ship does not project below the bottom as does the fin keel of a sailboat, but lies entirely within the ship. It consists of plates and angles built into an I-beam shape. The lower flange of the I-beam structure is the flat plate keel that forms the center strake of the bottom plating. The web of the I beam is the center vertical keel. The height of the center vertical keel varies from about 2 feet in small ships to nearly 7 feet in large ships. The upper flange of the I beam is called the rider plate. If the vessel is fitted with an inner bottom, the rider plate forms the center strake of the inner bottom plating. At the ends of the vessel, the keel is joined to the stem and stern posts, which complete the backbone. The keel accepts the major portion of load during dry-docking of the ship.

FRAMING

Two sets of stiffening members called frames help the shell plating resist the pressure of water, wind, and waves. Transverse frames extend from the keel outward around the turn of the bilge and up the sides like the ribs of the human skeleton. Closely spaced along the length of the ship, they define the form of the ship. Longitudinals, also called longitudinal frames or stringers, run parallel to the keel along the bottom, bilge, and side plating. They tie the transverse frames and bulkheads together along the length of the ship.

When two sets of frames intersect, openings in one set must be cut to make way for the other. Those which are not cut are known as continuous frames. When smaller frames butt into larger frames without being continuous, they are called intercostal frames. Therefore, ship construction requires two methods of framing. One method uses continuous transverse riblike frames with intercostal longitudinals between them or sufficient plating thickness to eliminate longitudinal members altogether. In this method the transverse frames are spaced about every 2 feet along the length of the ship. Ships built by this method are known as transversely framed vessels. Most merchant cargo ships and wooden ships are built in this fashion. The alternate method uses many continuous longitudinals along the length of the ship with the transverse frames spaced farther apart. Ships built by this method are known as longitudinally framed ships. Most naval ships are built this way. The plating loaded on the short edges of longitudinally framed ships has a higher buckling strength to resist the loads. Therefore, although the construction for longitudinally framed ships is the more difficult method, ships built by this method are stronger for a given weight.

BULKHEADS

The interior of the ship is divided into compartments either by vertical bulkheads (walls), which are watertight, or joiner bulkheads, which are not watertight. Structural bulkheads, which are watertight, also divide the ship into compartments but give the ship contour, shape, rigidity, and strength as well. They may be transverse bulkheads extending athwartships or longitudinal bulkheads extending fore and aft. They not only subdivide the ship, but tie the shell plating, framing, and decks together in a rigid structure. Transverse bulkheads are numbered to correspond with the transverse frames at which they are located.

DECKS

The compartments of a ship are further divided by a series of decks and platforms into tiers. The floor of a ship's compartment is normally called the deck, and the ceiling is called the overhead.

The decks of most ships consist of rectangular steel plates, similar to the shell plating, joined into strakes. The plates in the outermost strake of deck plating, called stringer plates, are connected to the shell plating. Transverse and longitudinal deck beams and deck girders on the underside of the deck strengthen the deck plating. These beams and girders usually consist of I beams or T beams fastened to the shell frames by triangular steel brackets. Decks above the waterline usually are arched (cambered) so that they are higher at the centerline. The camber aids in drainage of water.

The name of a deck depends on its position in the ship and its use or function. Decks extending from side to side and from stem to stern are complete decks; decks occurring only in certain portions of the vessel are partial decks. The uppermost complete deck is the main deck.

The complete decks below the main deck (fig. 17-2) are the second deck, third deck, and so forth. Partial decks that do not extend continuously from bow to stern have special names, such as the following:

- Forecastle deck: A partial deck above the main deck at the bow. It is used primarily on merchant ships and is designated the 01 level on naval ships.
- Upper deck: Above the main deck from the bow to abaft amidships on merchant ships. It is referred to in naval ships as the 01 level. Succeeding levels above are named the 02 level, 03 level, and so forth.
- Poop deck: Above the main deck in the stern, usually only in merchant ships. It is designated the 01 level on naval ships.
- Platform deck: Below the lowest complete deck. Platforms are numbered downward, such as first platform, second platform, and so on.

Miscellaneous working platforms or flats consisting of gratings are located in the machinery spaces. These platforms aid in the access to and operation of the ship's propulsion equipment.

In addition to the foregoing nomenclature, some decks are known by names describing their use or function. In aircraft carriers the uppermost complete deck is the flight deck, and the deck immediately below it is the gallery deck. The main deck is known as the hangar deck. The levels or decks above the hangar (main) deck are called the 01 level (first level above the hangar) and the 02 level (second level above the hangar). The gallery deck is also known as the 03 level and the flight deck as the 04 level.

COMPARTMENTATION

A cargo ship has only a few decks, and its bulkheads are widely spaced. The resulting compartments are identified by their primary purpose, such as cargo holds. In some cases, cargo holds are large enough to accommodate many tons of cargo. Passenger ships have smaller holds, the remainder of the space being divided by decks and bulkheads into smaller living compartments for passengers. Naval ships are usually more extensively compartmented than merchant ships. Their watertight compartmentation is more than a matter of dividing or segregating various activities aboard ship. The ability of a naval ship to withstand damage depends largely upon its compartmentation. In case of damage, the watertight boundaries of the compartments restrict floodwaters and stand as a barrier between them and the undamaged portion of the vessel. Extensive compartmentation lessens the amount of seawater that will enter the vessel through a rupture in its shell plating.

Watertight Integrity

If a compartment is not watertight, it is useless as a flood barrier. The quality of watertightness is known as watertight integrity. The greater the watertight integrity of a compartment, the more effectively it limits flooding. The battle to maintain the watertight integrity of the ship as a whole is a complicated and never-ceasing one. Many members of a ship's crew spend hours patrolling and inspecting the ship to maintain its watertight integrity and keep it in battle trim.

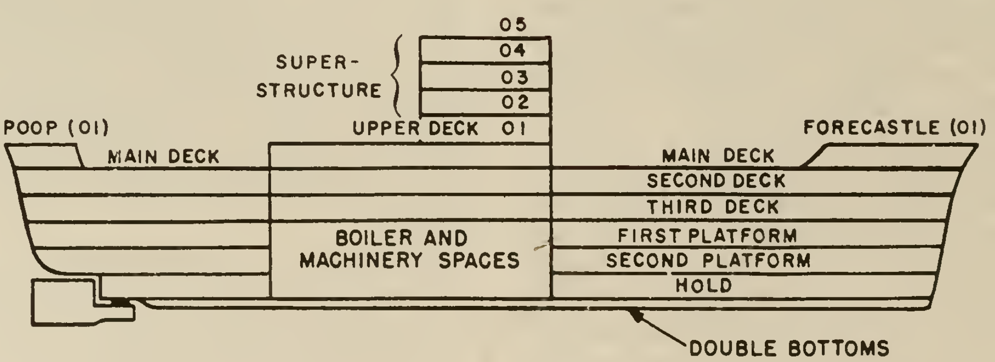


Figure 17-2.—Decks and platforms divide the ship into tiers of compartments.

Countless holes pierce watertight compartments to accommodate doors and hatches; water, steam, oil and air piping; electrical cables; ventilation ducts; and other necessary utilities. Each hole is plugged by a stuffing tube, a pipe spool, or some other device to prevent water from leaking in and around piping and cables. Piping and ventilation ducts are equipped with cutoff valves or other closures at each main bulkhead so that they can be closed off if ruptured. Ships enforce rigid restrictions against opening watertight doors or hatches during action or in dangerous waters. A ship must take all of these "defense" precautions to ensure its full fighting capability.

The main transverse watertight bulkheads contain no access doors or hatches below the damage control deck. The damage control deck is the lowest deck that permits fore-and-aft access, and that access is by watertight doors. The damage control deck is usually the first deck below the main deck.

Compartment Numbering System

This chapter does not discuss the numbering system for compartments of ships built before 1949. However, if you are stationed aboard one of these ships, you will be required to learn that numbering system as part of your damage control qualification.

In ships built after March 1949, each compartment number indicates that compartment's deck number, frame number, relation to the centerline of the ship, and usage. A hyphen separates the numbers and letters representing each type of information. The following is an example of a common compartment number and what each part of the number represents:

3-75-4-M

3—third deck

75—forward boundary at or immediately abaft of frame 75

4—second compartment outboard of CL to port

M—ammunition compartment

We will now explain how each part of the compartment number is assigned.

DECK NUMBER.—The main deck is deck number 1. The first deck or horizontal division below the main deck is number 2; the second below, number 3; and so forth. If a compartment extends down to the shell of the ship, the number assigned the bottom compartment is used. The first horizontal division above the main deck is number 01, the second above 02, and so on. The deck number, indicating its vertical position within the ship, becomes the first part of the compartment number.

FRAME NUMBER.—The frame number at the foremost bulkhead of the enclosing boundary of a compartment is its frame location number. When a forward boundary lies between frames, the frame number forward is used. Fractional numbers are used only when frame spacing exceeds 4 feet.

RELATION TO CENTERLINE.—Compartments through which the centerline of the ship passes carry the number 0 in the third part of the compartment number. Compartments located completely to starboard of the centerline have odd numbers; those completely to port bear even numbers. Two or more compartments that have the same deck and frame number and are entirely starboard or entirely port of the centerline have consecutively higher odd or even numbers, as the case may be. They are numbered from the centerline outboard. For example, the first compartment outboard of the centerline to starboard is 1; the second, 3; and so on. Similarly, the first compartment outboard of the centerline to port is 2; the second, 4; and so on.

COMPARTMENT USAGE.—The fourth and last part of the compartment number is a capital letter that identifies the assigned primary usage of the compartment. Since most ships do not consider a secondary usage of compartments, they identify them by a single letter only. However, dry and liquid cargo ships do not follow this practice. These ships use a double-letter identification to designate compartments assigned to cargo carrying. Ships assign letter identifications as follows:

Letter and Category	Types of Spaces
A—Dry stowage	Storerooms, issue rooms, refrigerated spaces
C—Ship control and fire control operating spaces	Plotting rooms, CIC, radio, radar, sonar operating spaces, pilothouse

E—Engineering spaces	Main propulsion spaces; pump, generator, and windlass rooms
F—Oil stowage	Fuel oil, diesel oil, and lubricating oil tanks
G—Gasoline stowage	Gasoline tank compartments, cofferdams, trunks, and pump rooms
J—JP-5 tanks	Aircraft fuel stowage
K—Chemicals and dangerous materials	Stowage of chemicals and semisafe and dangerous materials, except oil and gasoline tanks
L—Living spaces	Berthing and messing spaces, medical and dental areas, and passageways
M—Ammunition	Stowage and handling
T—Vertical access trunks	
V—Voids	Cofferdam compartments, other than gasoline; void wing compartments
W—Water stowage	Compartments storing water, including bilge, sump, and peak tanks
Q—Spaces not otherwise covered	Ship's offices, laundry rooms, galleys, pantries, and wiring trunks

The double letters AA, FF, and GG identify spaces used to carry cargo.

PROPULSION PLANTS

All ships require a means of propulsion. Navy ships use four types of propulsion plants, each with its own advantages and disadvantages:

- Conventional steam turbines
- Diesel engines
- Gas turbines
- Nuclear power plants

CONVENTIONAL STEAM TURBINES

The substance that operates a conventional steam turbine plant is steam. The plant produces steam (generation phase) to drive the turbines (expansion phase). It then condenses the steam (condensation phase) and reuses it (feed phase) to make steam again, as shown in figure 17-3.

One of the advantages of the steam propulsion plant is that it is a high-power system with the ability to propel combatant ships at high speeds. Another advantage is that ships can use it for a variety of auxiliary services, such as laundry and galley operations and hot water heaters.

Disadvantages include its bulkiness and the complication of the system. It is the slowest of the plants used as far as preparations for underway operations. Additionally, it consists of a relatively large number of operating stations, requiring higher manning.

Lets look at each of these four phases a little closer.

Generation

Steam is generated in the boiler. Naval propulsion boilers operate at 600 psi or 1,200 psi. A pressure-temperature relationship exists in the generation phase. At higher pressures, water must be heated to a higher temperature before the water will boil and produce steam. At 600 psi the boiling temperature is 489°F. At 1,200 psi the boiling temperature is 567°F.

In the pressure vessel of the boiler, steam cannot be further heated unless all the water is first boiled. Having some water in the boiler is necessary to ensure heat flow and to prevent the boiler tubes from melting.

As steam is drawn from the steam drum, it first passes through separators to remove moisture. It then passes through the superheater, which further heats the steam to a higher temperature. Superheated steam has more energy per unit mass for conversion to mechanical energy.

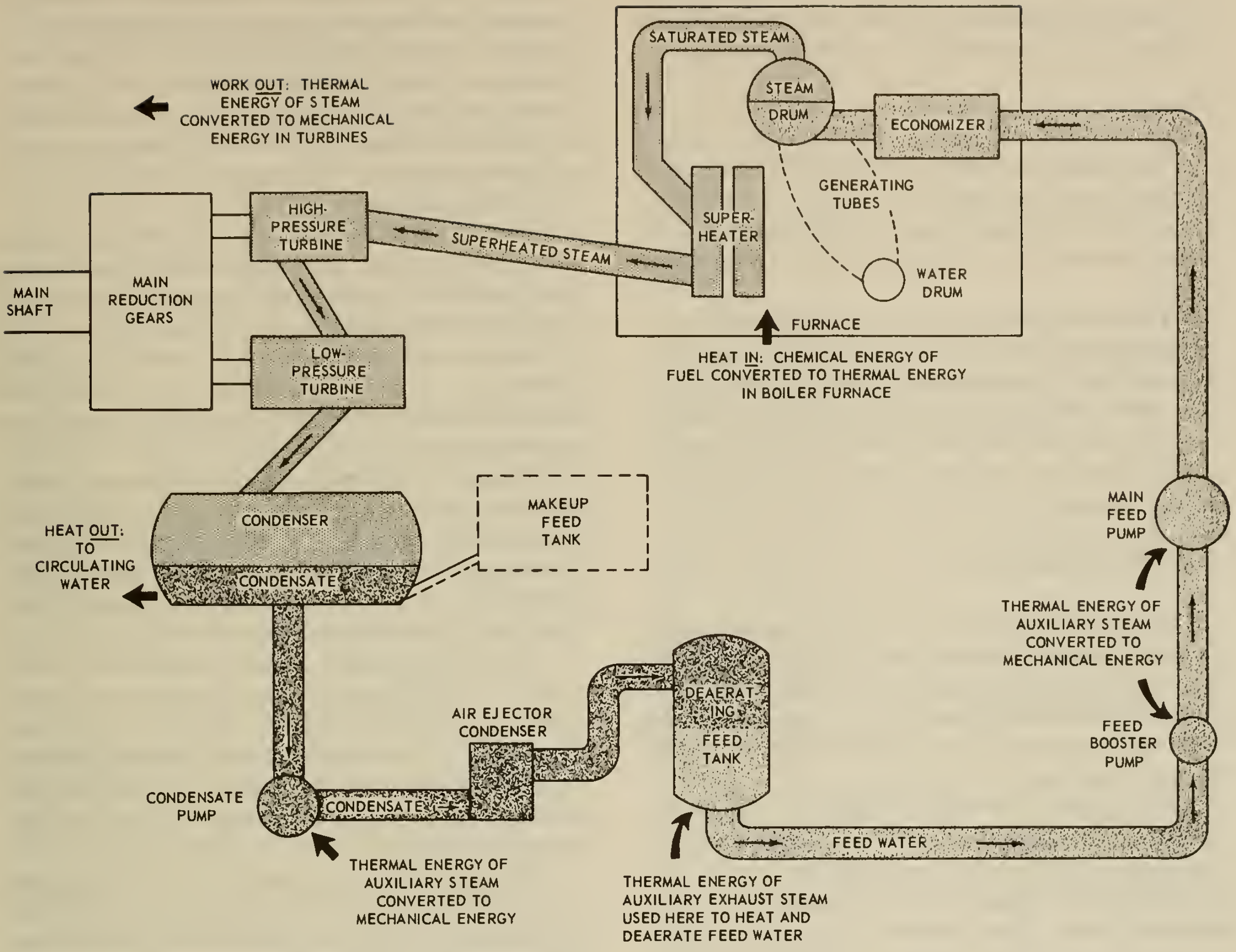

WORK OUT: THERMAL ENERGY OF STEAM CONVERTED TO MECHANICAL ENERGY IN TURBINES
SATURATED STEAM
STEAM DRUM
ECONOMIZER
GENERATING TUBES
SUPER-HEATER
WATER DRUM
FURNACE
HEAT IN: CHEMICAL ENERGY OF FUEL CONVERTED TO THERMAL ENERGY IN BOILER FURNACE
HIGH-PRESSURE TURBINE
SUPERHEATED STEAM
MAIN SHAFT
MAIN REDUCTION GEARS
LOW-PRESSURE TURBINE
CONDENSER
CONDENSATE
HEAT OUT: TO CIRCULATING WATER
MAKEUP FEED TANK
MAIN FEED PUMP
THERMAL ENERGY OF AUXILIARY STEAM CONVERTED TO MECHANICAL ENERGY
FEED BOOSTER PUMP
DEAERATING FEED TANK
AIR EJECTOR CONDENSER
CONDENSATE PUMP
CONDENSATE
FEED WATER
THERMAL ENERGY OF AUXILIARY STEAM CONVERTED TO MECHANICAL ENERGY
THERMAL ENERGY OF AUXILIARY EXHAUST STEAM USED HERE TO HEAT AND DEAERATE FEED WATER

Figure 17-3.—Energy relationships in the basic propulsion cycle of conventional steam-driven ships.

Since superheated steam is dry, it causes less corrosion of piping and machinery.

For auxiliary purposes, some steam is desuperheated by passing through the desuperheater piping located in the steam drum. The superheated steam is then ready for use to drive the turbine.

Expansion

In the expansion phase the thermal energy of the steam is converted to mechanical energy in the turbines. Turbines use nozzles to convert the higher pressure of the steam into a high velocity. The kinetic energy of the steam is then transferred to the turbine blading, creating the mechanical energy of the turbine rotor. That, in turn, through the reduction gears, turns the propellers.

Condensation

As the steam leaves, or exhausts through, the turbine, it is condensed so that the feedwater may be reused. One boiler can generate 150,000 pounds of steam per hour. If the feedwater were not recovered, the system would require an enormously large evaporator to produce the required feedwater.

As the steam exhausts into the main condenser, seawater passes through tubes in the condenser. The cool seawater cools the steam to the point of condensation. The condenser operates at a vacuum, which helps this process and increases the efficiency of the system.

The condensate pump takes a suction from the main condenser hot well and delivers the condensate (condensed steam) into the condensate piping system and the air ejector condenser. The air ejector condenser removes the air and noncondensable gases from the condensate before they enter the deaerating feed tank (DFT).

Feed

The feed phase starts in the DFT. The DFT preheats the feedwater and removes dissolved gases. The dissolved gases, if not removed, will cause erosion and deterioration of the boiler tubes.

The main feed booster pump and main feed pump increase the feedwater pressure to a pressure greater than the operating pressure of the boiler. The increased pressure ensures a flow of feedwater through the boiler. That brings us back to the point where we started. Thus, the system is a closed system.

DIESEL ENGINES

Diesel engines are the favored means of power for medium and light vessels. They are relatively low-cost power plants to produce, are reliable, and have a high fuel-efficiency rate. They can also be started from a cold-plant condition and rapidly brought on line.

The cycle of operation for diesel engines starts with the intake of air. Next the air is compressed. Following compression, combustion occurs. The combustion produces a rapid expansion of gases in the cylinder. This downward expansion is the power stroke of the cylinder. As the waste gases exhaust, new air intake occurs to start the cycle over again.

Each cycle causes the pistons within the cylinders to reciprocate. The rotary motion of the pistons, connected to the crankshaft, drives the propellers.

Among the disadvantages are the frequent overhaul and periodic maintenance requirements and the power limitations of the engines. Diesels cannot develop enough power to meet the high-speed requirement of combatant ships.

GAS TURBINES

In gas turbines, as in diesel engines, the working substance is air. They are open systems; that means the air passes through the engine once and is discharged back to the atmosphere.

Air is drawn into the compressor from the atmosphere. The compressor raises the pressure of the air and discharges it to the combustion chamber, where fuel is admitted. Here, as the fuel-air mixture ignites, combustion occurs. The hot combustion gases then expand and enter the turbine. This turbine is similar in design and theory to that of the conventional steam turbine. Approximately 75 percent of the power developed by the turbine is used to drive the compressor and accessory systems. The remaining power is used as engine output.

The shaft of a gas turbine ship rotates in one direction only. An external method of reversing the direction of travel of the ship is required to propel the ship forward or backward. This problem is overcome by the reversible pitch propeller. As the shaft turns in one direction, the ship is propelled forward or backward by a change in the propeller pitch.

Because of the high rotational speed and high temperatures of the gas turbine, operational parameters must be closely monitored. Automated central operating systems have been developed to monitor those parameters, thus keeping the manning level low.

Two disadvantages of gas turbines are that the engine must be removed for overhaul and that it needs a high volume of air for operation. However, these two disadvantages complement each other because the engine can be removed through the large ducts needed to accommodate the high volume of air.

Gas turbines are becoming the preferred propulsion plant for several ship types. They are very light and compact and offer a high-power plant that is relatively inexpensive to build. They are as fuel efficient as a conventional steam plant.

NUCLEAR POWER PLANTS

Nuclear power plants are very similar to conventional steam turbine plants. The major difference is that a nuclear reactor replaces the boiler as the device that generates steam.

Submarines are ideally suited for a nuclear power plant because their reactor does not need a supply of air from the atmosphere. Before the advent of nuclear power, submarines ran on motors charged by d.c. batteries when submerged. When surfaced, diesel engines supplied power for the submarine and recharged the batteries. The charge of the batteries limited the endurance of the submerged submarine. Nuclear power plants enable submarines to remain submerged for extended periods.

Nuclear reactors transfer the energy emitted by the fission of radioactive material into thermal energy. A primary and a secondary system (or loop) generate steam. Water in the primary loop (fig. 17-4) is heated but not converted to steam. The water in the primary loop flows from the reactor to a heat exchanger called the steam generator. Here, the high-temperature, high-pressure water in the primary loop heats the water in the secondary loop until it becomes steam. The water in the primary loop then returns to the reactor by the primary coolant pump. The steam generated in the secondary loop, which is not superheated, goes to the turbine. This portion of the secondary loop uses a condenser and a feed pump similar to the conventional steam turbine plant.

The nuclear power plant has two primary advantages—infrequent fueling requirements and no need for combustion air. The ability of the plant to operate without combustion air, as previously mentioned, makes it ideal for use in submarines. The nuclear power plant is, however, expensive to build and extremely heavy; it requires highly trained personnel for its operation.

DAMAGE CONTROL

An area of engineering that should by no means be considered secondary is damage control (DC). Damage control is an all-hands evolution on Navy ships that can never be overemphasized.

DAMAGE CONTROL ORGANIZATION

Damage control is divided into two phases—administrative and battle. The administrative phase requires the efforts of all hands in establishing and maintaining material readiness conditions. (Material readiness means all equipment aboard ship is available and in a working condition to combat any emergency.) The battle phase starts after a ship has received damage and must restore its offensive and defensive capabilities. All hands must be trained in both phases if the ship is to achieve its damage control objectives.

When properly carried out, the first or initial action taken helps reduce and confine any damage received. Strict use of compartment checkoff lists ensures the full protection offered by each material readiness condition.

Once the ship has been damaged, the ship's DC organization is responsible for restoring the ship to as near normal operation as possible. The ship's engineer officer is responsible for the operational readiness of the DC organization. Under the engineer officer the damage control assistant (DCA) coordinates the efforts of repair parties in the control of damage. These efforts include controlling the ship's stability; fighting fires; repairing damage; and using chemical, biological, and radiological (CBR) defense measures. The DCA also ensures that the crew receives training in all damage control evolutions. In some instances, the DCA and the engineer officer may be the same person.

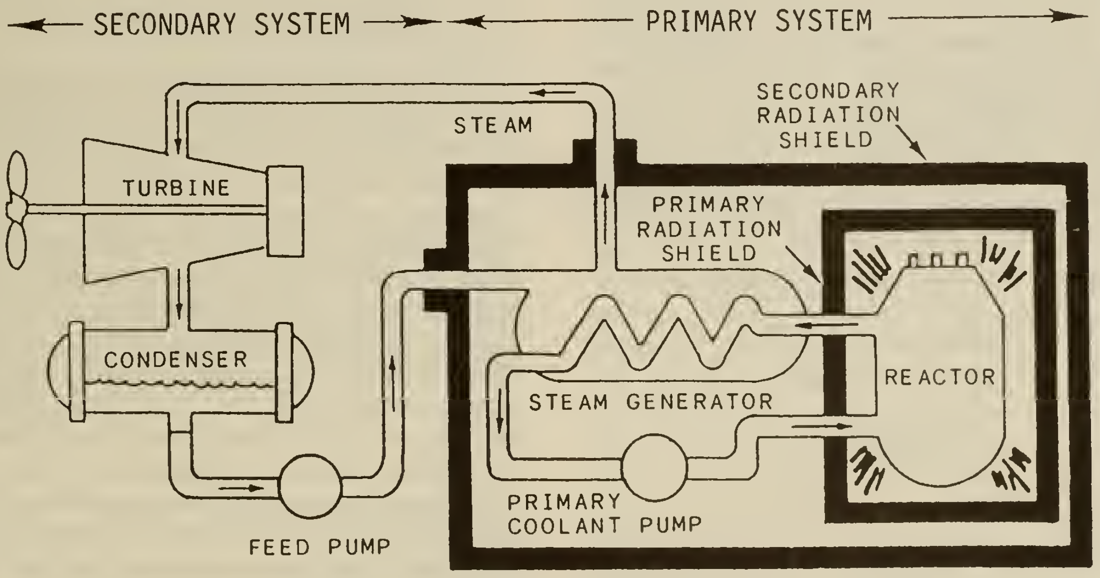


Figure 17-4.—Naval nuclear power propulsion plant.

Damage Control Central

The primary purpose of damage control central (DCC) is to determine the condition of the ship and the corrective action to be taken. DCC makes this determination by collecting and comparing reports from the various repair stations.

The DCA is assigned to damage control central, the nerve center and directing force of the entire damage control organization. Representatives of various shipboard divisions are also assigned to DCC.

Reports from repair parties are carefully checked. This information enables DCC to initiate immediate action to isolate damaged systems and to make emergency repairs in the most effective manner. Under the direction of the DCA, graphic records of the damage are made on various damage control diagrams and status boards as reports are received. For example, reports on flooding are recorded, as they come in, on a status board that indicates liquid distribution (fuel and water) before the damage occurred. With this information, the stability and buoyancy of the ship can be estimated and the necessary corrective measures can be taken.

If damage control central is destroyed or is for other reasons unable to retain control, designated repair stations take over the responsibilities of damage control central.

Repair Parties

All ships have at least one repair party; most have three or more. Each party has an officer, a chief petty officer, or a senior petty officer in charge. This person is called the repair locker leader or repair party leader. The makeup of each repair party depends upon the type of ship, the section of the ship assigned to the repair party, and the number of personnel available. The following chart lists the repair parties and their assigned areas of responsibility:

Repair Party	Location or Function
Repair 1	Main deck repair
Repair 2	Forward repair
Repair 3	After repair
Repair 4	Amidship repair
Repair 5	Propulsion repair
Repair 6	Ordnance
Repair 7	Gallery deck and island structure
Repair 8	Electronics

Additionally, aircraft carriers and ships equipped for helicopter operations have crash and salvage teams and personnel trained to repair damaged aviation fuel piping systems. Carriers also have an ordnance disposal team.

The specific purpose of each repair party depends on its area of responsibility. Each repair party must be able to perform the following functions:

1. Make repairs to electrical and sound-powered telephone circuits, and rig casualty power
2. Give first aid and transport injured personnel to battle dressing stations without seriously reducing the party's damage control capabilities
3. Detect, identify, and measure radiation dose and dose rate intensities; decontaminate the affected areas of nuclear, biological, and chemical attacks
4. Identify, control, and extinguish all types of fires
5. Evaluate and report correctly the extent of damage in the repair party's area of responsibility
6. Control flooding
7. Make repairs to various piping systems
8. Be familiar with all damage control fittings in their assigned areas, such as watertight doors, hatches, scuttles, ventilation systems, and various valves

On large ships each party is subdivided into several units and assigned to the various sectors of the repair party's area of responsibility. That speeds up inspections and reduces the chances of an entire repair party's becoming a casualty. Each unit establishes patrols, normally consisting of three persons who determine material conditions in their sectors. These patrols report to their repair party headquarters, which, in turn, reports to DCC. When all hands are on board, major emergencies are met with the crew at general quarters. In port, with all hands not on board, each duty section has a duty in-port fire party and a rescue and assistance detail. If any emergency arises, all personnel not assigned specific duties fall in at quarters. These personnel are then available to assist the duty in-port fire party and the rescue and assistance detail.

FIRE AND FIRE FIGHTING

Fire is a constant threat aboard ship. Personnel must take all possible measures to prevent a fire or, if one is started, to extinguish it quickly. Fires have several causes: spontaneous combustion, carelessness, hits by enemy shells, or a collision. If the fire is not controlled quickly, it could cause more damage than the initial casualty and could cause the loss of the ship.

Fighting fires is primarily handled by repair parties. However, you must learn all you can about fire fighting so that you will know what to do if called upon.

Fires are classified into four types based on the type of material burning and the fire-fighting agents and methods required to extinguish the fire:

1. Class A fires involve solid materials that leave an ash, such as wood, cloth, and paper. Water is the primary means of extinguishing class A fires. Carbon dioxide (CO_2) may be used on small fires, but not on explosives. The flames of a large fire usually must first be knocked down (cooled) with fog. The material, particularly mattresses and similar articles, is then broken up with a solid stream for further cooling.

2. Class B fires involve flammable liquids such as oil, gasoline, and paint. The best extinguishing agent for class B fires is aqueous film forming foam (AFFF). Another good extinguishing agent is Halon. Halon systems are being installed for combating class B and C fires. For small fires, or in a confined space like a paint locker, CO_2 is a good extinguisher. For large fires, other agents such as a water fog or foam must be used. A solid water stream should NEVER be used on a class B fire. The stream will simply penetrate the flammable liquid's surface, with no cooling effect, and scatter the liquid, thus spreading the fire.

Class B fires involve the three temperature levels of flash point, fire point, and ignition point. A small spark may be all that is needed for ignition. Fire will flash across a surface, but will not continue to burn; however, the flash may be hot enough to ignite some other material or to injure personnel.

3. Class C fires are those associated with electrical or electronic equipment. The primary extinguishing agent is CO_2, but high-velocity fog may be used as a last resort. Foam should not be used as it will damage the equipment and may present a shock hazard. A solid water stream should NEVER be used. If at all possible, electrical power to the equipment should be secured.

4. Class D fires involve metals, such as magnesium, sodium, and titanium. These metals are used in the manufacture of certain parts of aircraft, missiles, electronic components, and other equipment. A typical example is the magnesium aircraft parachute flare. This flare burns at a temperature above 4000°F with a brilliancy of 2 million candlepower. Since water coming in contact with burning magnesium produces highly explosive hydrogen gas, a solid water stream should NEVER be used on this type of fire. However, low-velocity fog can put out the fire in a matter of seconds with little danger. Jettisoning the burning object overboard is another method.

Despite the most carefully observed safety precautions, a fire may still occur. If you discover a fire, report it immediately so that fire-fighting operations can be started. The efforts of even one person may contain the fire until the arrival of the fire party. If the fire threatens to get out of control, try to prevent it from spreading. Secure all doors, hatches, and other openings in the fire area, including ventilation ducts, to confine the fire within a specific boundary. You can establish a primary fire boundary by cooling all bulkheads, decks, and overheads surrounding the fire area. Always ensure dewatering equipment (pumps) is ready for immediate use in case of a fire. The amount of water used for fighting the fire and for cooling purposes may cause a serious ship stability problem.

PREVENTIVE DAMAGE CONTROL

Naval ships are designed to resist accidental and battle damage. Damage-resistant features include structural strength, watertight compartmentation, stability, and buoyancy. Maintaining these features and a high state of material and personnel readiness before damage does more to save the ship than any measures taken after damage. Ninety percent of the damage control needed to save a ship takes place before damage and only 10 percent after the damage.

The division damage control petty officer (DCPO) is one person in the DC organization who helps to ensure that preventive damage control measures have been taken. The DCPO oversees the maintenance of divisional DC equipment and also assists in training divisional personnel in DC.

Always keep in mind that damage control is an all-hands evolution. The best way to defend against damage is to prevent it. If damage occurs, however, all hands must be trained in damage control procedures to prevent the loss of the ship.

SUMMARY

In this chapter we introduced you to the major structural components of ships and how they affect the watertight integrity of the ship. We also explained the system of numbering ship compartments.

The four primary propulsion plants used by the Navy are the conventional steam turbine, diesel engine, gas turbine, and nuclear power plant. We discussed the advantages and disadvantages of each type.

Last but not least, we talked about damage control. Once again, remember that damage control is an all-hands evolution.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Principles of Naval Engineering, NAVPERS 10788-B1, Bureau of Naval Personnel, Navy Department, Washington, D.C., 1970.

SUGGESTED READING

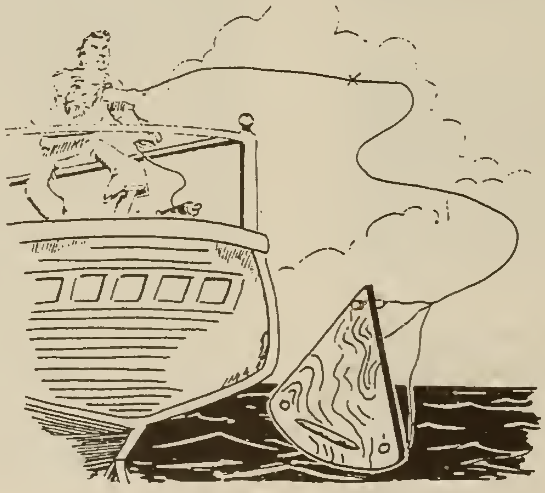
Bland, D. A., A. E. Bock, and D. J. Richardson, *Introduction to Naval Engineering*, 2d ed., Naval Institute Press, Annapolis, Md., 1985.

Felger, D. G., *Engineering for the Officer of the Deck*, Naval Institute Press, Annapolis, Md., 1979.

KNOT

THE TERM "KNOT" OR "NAUTICAL MILE" IS USED WORLD WIDE TO DENOTE A SHIP'S SPEED THROUGH WATER. TODAY, WE MEASURE KNOTS WITH ELECTRONIC DEVICES, BUT 200 YEARS AGO SUCH DEVICES WERE UNKNOWN. INGENIOUS MARINERS DEVISED A SPEED MEASURING DEVICE BOTH EASY TO USE AND RELIABLE: THE " LOG LINE." FROM THIS METHOD WE GET THE TERM "KNOT."

THE LOG LINE WAS A LENGTH OF TWINE MARKED AT 47.33-FOOT INTERVALS BY COLORED KNOTS. AT ONE END WAS FASTENED A LOG CHIP; IT WAS SHAPED LIKE THE SECTOR OF A CIRCLE AND WEIGHTED AT THE ROUNDED END WITH LEAD. WHEN THROWN OVER THE STERN, IT WOULD FLOAT POINTING UPWARD AND WOULD REMAIN RELATIVELY STATIONARY. THE LOG LINE WAS ALLOWED TO RUN FREE OVER THE SIDE FOR 28 SECONDS AND THEN HAULED ON BOARD. KNOTS THAT HAD PASSED OVER THE SIDE WERE COUNTED. IN THIS WAY THE SHIP'S SPEED WAS MEASURED.



CHAPTER 18

EXTERNAL EQUIPMENT OF SHIPS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the ground tackle used on Navy ships.
2. Identify the boats and survival equipment used on Navy ships.
3. Identify various equipment used on the bridge of Navy ships.
4. State the purpose of antennas and radar on Navy ships.

The external equipment of a ship differs according to ship type. For example, a guided-missile cruiser (CG) might have guns, missiles, torpedoes, and a close-in weapons system (CIWS). However, a tank landing ship (LST) may only have guns and the CIWS for armament. The LST has bow ramps and a stern gate, but the CG doesn't. Both ships have similar ground tackle, boats, and survival gear.

In this chapter we will look at some of the ground tackle used on Navy ships. We will also identify some of the boats, survival gear, bridge equipment, and other various gear used on Navy ships.

GROUND TACKLE

Ground tackle is the equipment ships use in anchoring and mooring with anchors. It includes anchors; anchor cables and chains; and associated equipment, such as chain stoppers, bending shackles, outboard swivel shots, and detachable links. Figure 18-1 shows a typical ground tackle arrangement on a forecastle.

ANCHORS

Anchors can be defined by their stowage locations aboard ship or by their type of construction. Bower anchors are carried on the

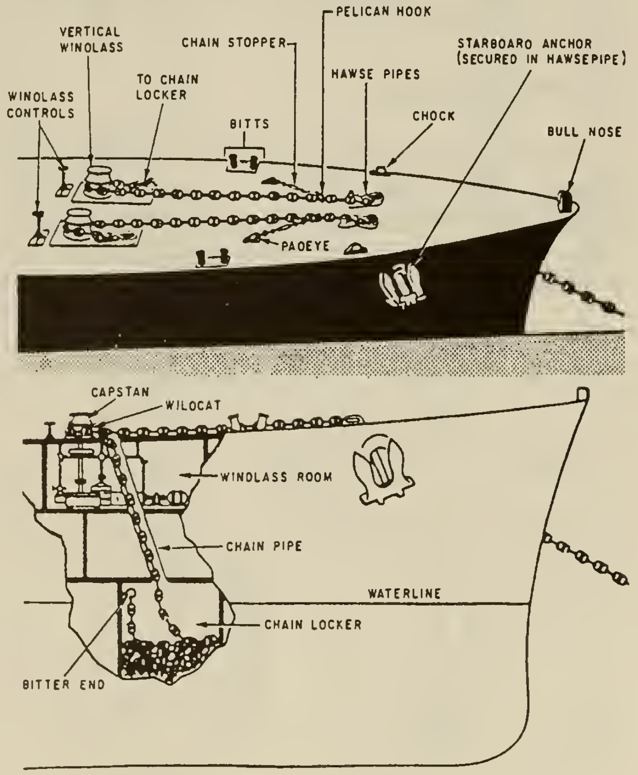

PELICAN HOOK
VERTICAL WINDLASS
CHAIN STOPPER
STARBOARD ANCHOR (SECURED IN HAWSEPIPE)
TO CHAIN LOCKER
HAWSE PIPES
WINDLASS CONTROLS
BITTS
CHOCK
BULL NOSE
PADEYE
CAPSTAN
WILDCAT
WINDLASS ROOM
CHAIN PIPE
WATERLINE
CHAIN LOCKER
BITTER END

Figure 18-1.—Typical ground tackle and chain stowage.

bow and are secured (housed) in the hawsepipe. Stern anchors are carried on the stern. On landing ships and craft, stern anchors are used to assist them in pulling away from beaches.

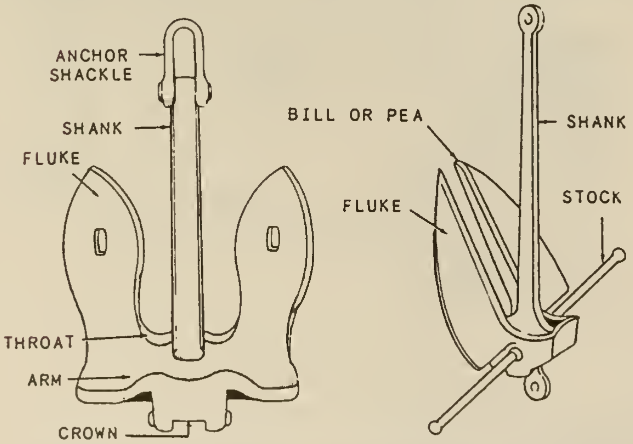
The most common types of anchors used aboard ship are the stockless and the lightweight (or stock in crown). The two anchors shown in figure 18-2 are of Navy design. The stockless types are used chiefly as bow anchors (bowers) on most Navy ships. Originally, the lightweight types were used only on small boats and as stern anchors on landing ships and craft. Recently, however, they have made their appearance as bowers for several types of vessels.

ANCHOR CHAIN

Modern Navy anchor chains consist of studded links of high-strength steel. (Studs are crosspieces of metal forged or welded in the center of the links to prevent the chain from kinking.) The chains are made up of 15-fathom (90-foot) sections called standard shots. The number of shots per chain depends on the size of the ship. Shots are secured together by detachable links that can be readily disassembled whenever the chain must be broken.

STOWING CHAIN

As the chain comes aboard, it passes along the deck on metal flash plates, over the wildcat, and down into the chain locker, as shown in figure 18-1. Its bitter end is secured to a ring bolt on the bulkhead of the chain locker.



STANDARD STOCKLESS

LIGHT WEIGHT TYPE (LWT)

Figure 18-2.—Anchor types.

ANCHOR WINDLASSES

The Navy uses two types of anchor windlasses for lifting the ship's anchor. Most combatant ships use the vertical shaft type (fig. 18-1). Amphibious and auxiliary ships use the horizontal shaft type. Both types are equipped with wildcats, which engage the link of the anchor chain. The wildcat may be disengaged when the capstan (vertical type) or the gypsy heads (horizontal type) are used for handling lines or wire.

BOATS AND SURVIVAL EQUIPMENT

Some ships carry boats used to transport personnel. These boats can be used for routine or survival purposes. Another type of boat, the lifeboat, is used strictly for survival purposes.

BOATS

The term *boat* refers to a noncommissioned waterborne vessel that is not designated as a service craft. A boat is capable of limited independent operation. Officer and personnel boats, motor whaleboats, and utility boats fit into this group. Boats carried aboard ship that can be hoisted from and lowered into the water are known as ship's boats.

LIFEBOATS AND LIFE RAFTS

A warship does not have room for all the powerboats needed to transport the entire crew in a survival situation. At sea, a power boat is usually difficult, and sometimes impossible, to launch rapidly. For these reasons, the Navy has spent time and expense developing efficient lifeboats other than powerboats.

Several types of inflatable lifeboats or life rafts are used by the Navy. Each boat or raft is stocked with enough survival equipment to support the number of survivors the boat was designed to carry. The survival gear includes a canopy, a sea anchor, a lifeline, boarding line, a rain-catcher tube, air hand pumps, paddles, sponges, a repair kit for patching leaks, and a floatable knife. The Mk 6 Mod 1 inflatable life raft also carries desalter kits for turning seawater into freshwater. In the survival kits are food rations, sea marker dye, a flashlight, batteries, a signal mirror, a whistle, a first-aid kit, a distress signal kit, and containers of freshwater. The survival kits in the Mk 6 25-man life raft can sustain 25 people for 5 days on regular rations. The general arrangement of the Mk 6 life raft is shown in figure 18-3.

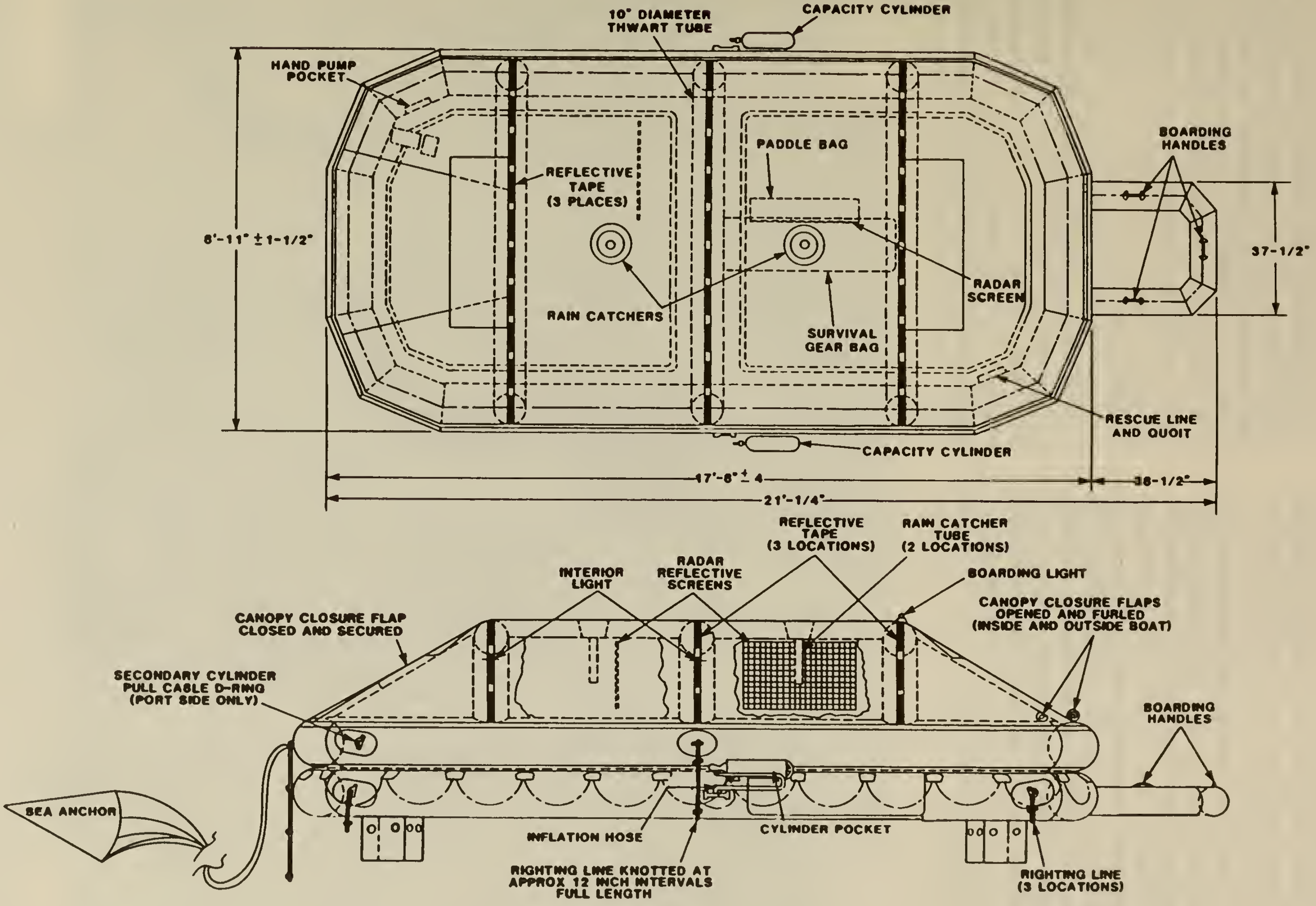

10" DIAMETER THWART TUBE
CAPACITY CYLINDER
HAND PUMP POCKET
PADDLE BAG
BOARDING HANDLES
REFLECTIVE TAPE (3 PLACES)
8'-11" ± 1-1/2"
37-1/2"
RADAR SCREEN
RAIN CATCHERS
SURVIVAL GEAR BAG
RESCUE LINE AND QUOIT
CAPACITY CYLINDER
17'-8" ± 4
38-1/2"
21'-1/4"
REFLECTIVE TAPE (3 LOCATIONS)
RAIN CATCHER TUBE (2 LOCATIONS)
RADAR REFLECTIVE SCREENS
INTERIOR LIGHT
BOARDING LIGHT
CANOPY CLOSURE FLAPS OPENED AND FURLED (INSIDE AND OUTSIDE BOAT)
CANOPY CLOSURE FLAP CLOSED AND SECURED
SECONDARY CYLINDER PULL CABLE D-RING (PORT SIDE ONLY)
BOARDING HANDLES
SEA ANCHOR
INFLATION HOSE
CYLINDER POCKET
RIGHTING LINE KNOTTED AT APPROX 12 INCH INTERVALS FULL LENGTH
RIGHTING LINE (3 LOCATIONS)

Figure 18-3.—Mk 6 Mod 1 life raft. In case the ship sinks before the life raft can be launched, a hydrostatic release device frees the raft allowing it to rise to the surface.

SURVIVAL EQUIPMENT

All ships carry various types of survival equipment in addition to boats and life rafts. One of these items of survival gear is the life preserver. The Navy uses two types of life preservers—the inherently buoyant type and the inflatable type. Most ships carry both types. They are stowed in various locations around the ship so that all personnel have access to them.

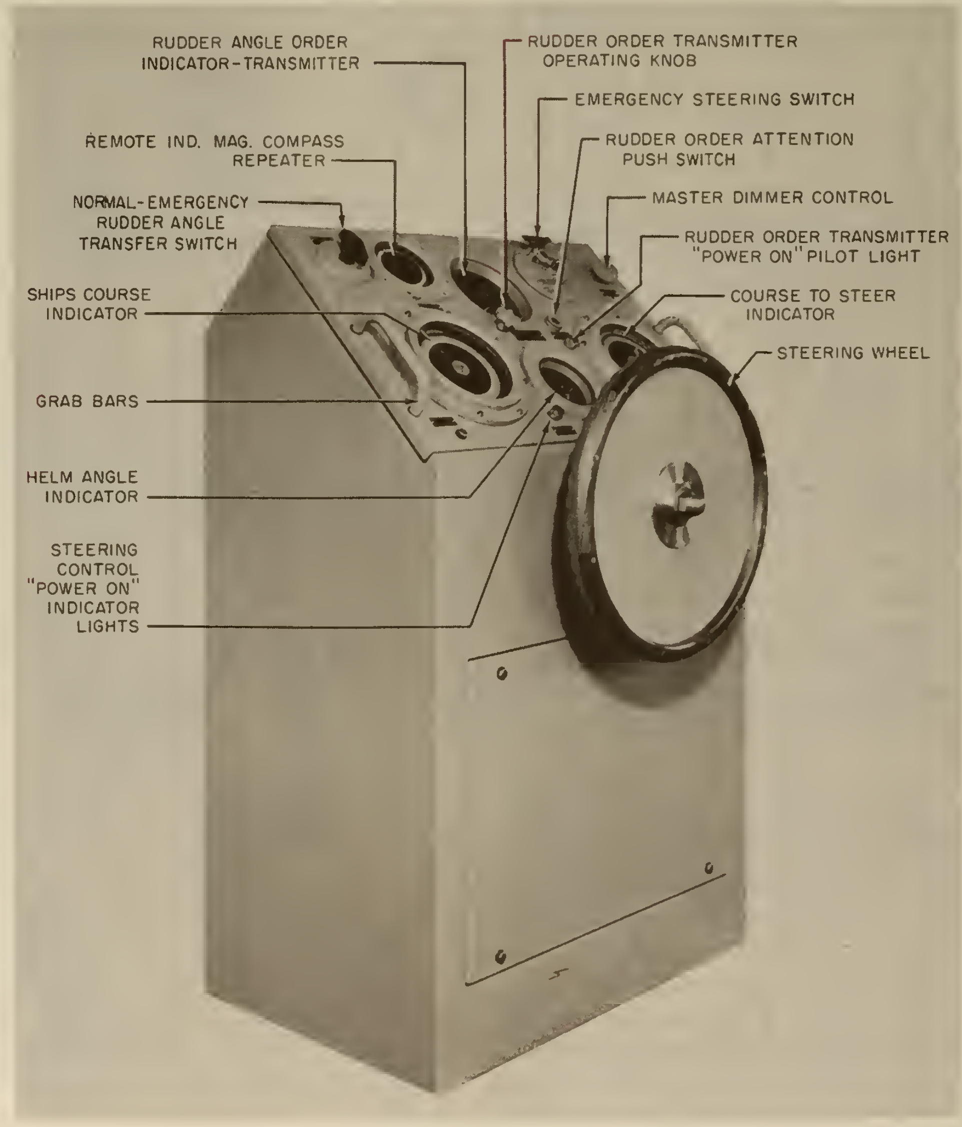
Another item along the same line is the life ring. It is inherently buoyant and has a strobe light attached to it. Often located near the life ring is a smoke float. In the event of a man overboard, both the life ring and the smoke float should be thrown near the person.

BRIDGE EQUIPMENT

The bridge is the primary control station aboard ship. Located on the bridge are the items used to control the movement of the ship. Other items used to ensure the safe navigation of the ship, such as the compass, radar repeaters, and status boards, are also located on the bridge.

HELM

The helm on a ship (fig. 18-4) is the equivalent of the steering wheel on a car. The helmsman turns the helm to keep the ship on a desired course or to turn the ship. When the helm is turned, the mechanical input of turning the helm is converted


RUDDER ANGLE ORDER INDICATOR-TRANSMITTER
REMOTE IND. MAG. COMPASS REPEATER
NORMAL-EMERGENCY RUDDER ANGLE TRANSFER SWITCH
SHIPS COURSE INDICATOR
GRAB BARS
HELM ANGLE INDICATOR
STEERING CONTROL "POWER ON" INDICATOR LIGHTS
RUDDER ORDER TRANSMITTER OPERATING KNOB
EMERGENCY STEERING SWITCH
RUDDER ORDER ATTENTION PUSH SWITCH
MASTER DIMMER CONTROL
RUDDER ORDER TRANSMITTER "POWER ON" PILOT LIGHT
COURSE TO STEER INDICATOR
STEERING WHEEL

7.133

Figure 18-4.—A typical helm console.

to an electrical signal. This electrical signal is then transmitted to the steering engine, usually located near the stern of the ship. Here the electrical signal is received by the steering engine, where it is converted to a mechanical input to move the rudder. The movement of the rudder causes the ship to move in the desired direction.

The ship is normally steered from the helm on the bridge. If that part of the ship should sustain any kind of damage, the steering can be shifted to other locations, such as after steering.

LEE HELM

The lee helm of a ship could be compared to the gas pedal of a car. The lee helm, which can be seen in figure 18-5, is actually two instruments in one—the engine-order telegraph and the engine-revolution indicator.

Engine-Order Telegraph

The engine-order telegraph communicates speed orders to the engine room. It has duplicate dials divided into sectors for flank, full, standard, 2/3, and 1/3 speed ahead and 1/3, 2/3, and full speed back. A hand lever fitted with an indicator travels over the circumference of the circular face of the instrument. When the handle is moved to the required speed sector, the engine room complies with the order immediately. The engine room notifies the bridge that it has complied with the

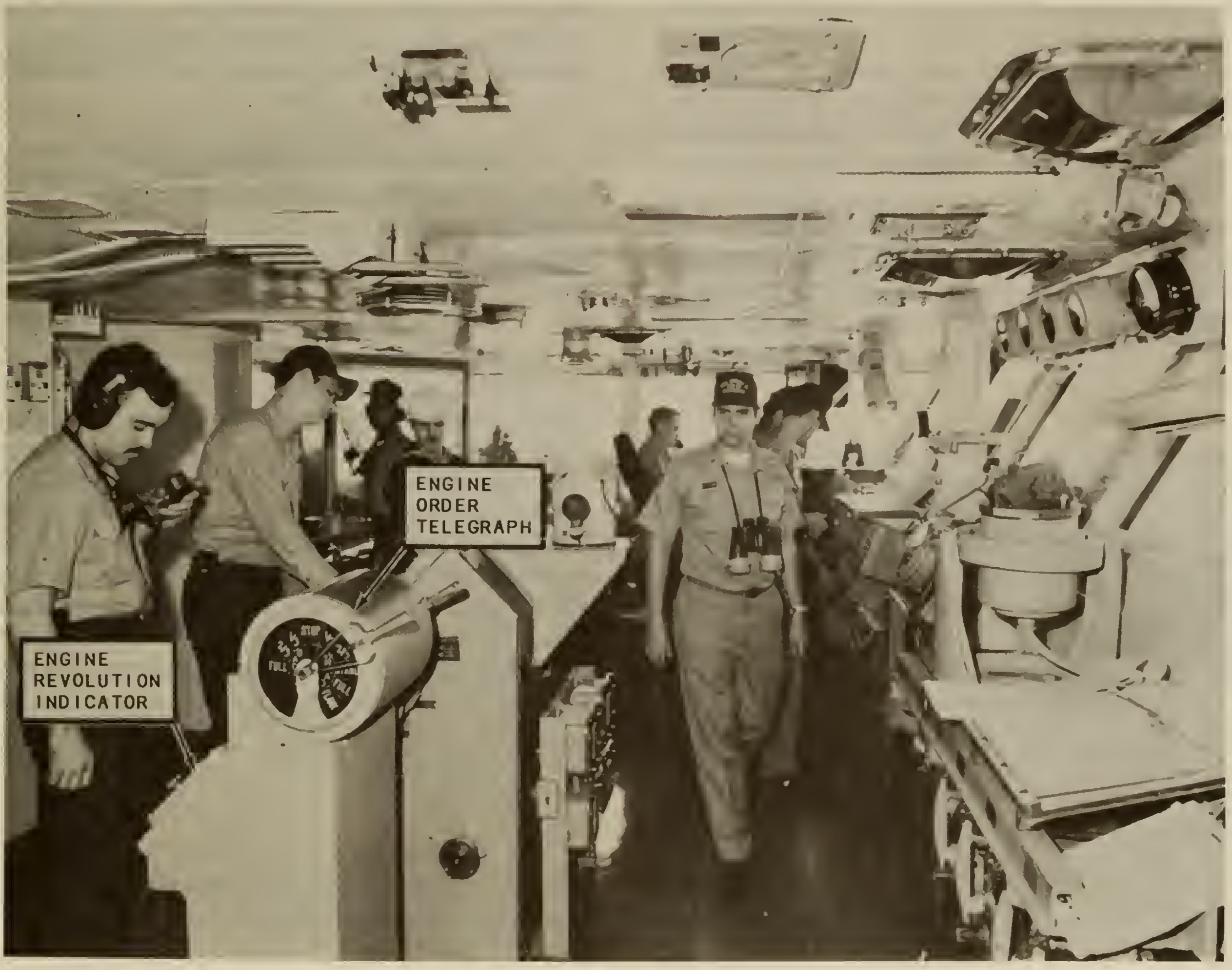


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Figure 18-5.—An interior view of the bridge of USS Dwight D. Eisenhower (CVN-69). The box-like console in the left foreground of the figure is the lee helm; it includes the engine-order telegraph, which is the cylinder-shaped component, fitted with a hand lever, showing a circular-faced dial divided into sectors.

order by moving an answering pointer into the same sector as the requesting pointer from the bridge.

Engine-Revolution Indicator

Near the engine-order telegraph, you normally will find another device, the engine-revolution indicator (fig. 18-6).

On the face of this instrument are three small windows with two rows of numbers in each window. The lower row of numbers is set individually by three hand knobs located directly below the windows. For example, if 110 shaft revolutions per minute is required for a ship to proceed at 15 knots, the lee helmsman would indicate the numbers 1, 1, and 0 in the lower row of numbers. These lower numbers give a visual indication of the shaft revolutions ordered by the conning officer to the engine room. Through electrical transmission, corresponding numbers appear on a similar instrument in the engine room(s). In the engine room(s), these orders are receipted and acknowledged when the engine-room instrument is set on the same settings. Once again this indication is transmitted back to the bridge electrically and is shown on the upper row of numbers. Thus, the lee helmsman is able to report to the conning officer the receipt of the order for engine speed and see that the order is being carried out.

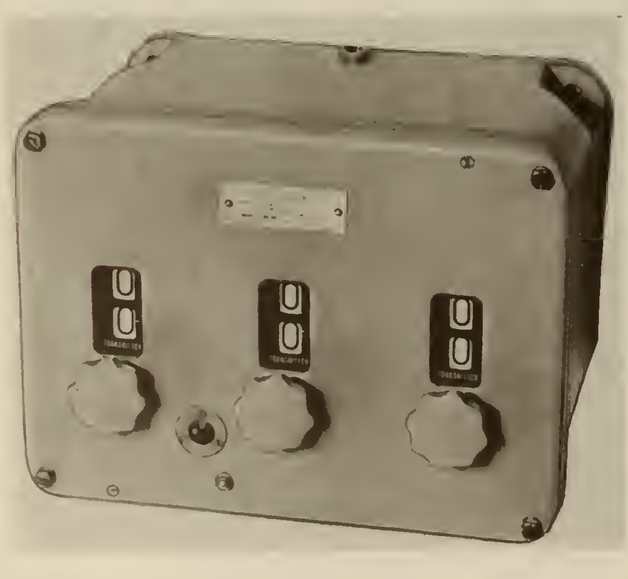

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Figure 18-6.—Engine revolution indicator.

The number of revolutions per minute required to travel at the various speeds (in knots) is calculated in advance and is posted on a table near the lee helm.

On older ships the helm and the lee helm are located in different consoles, usually near each other. On newer ships, however, a ship-control console houses all the equipment for steering the ship and for controlling its speed in one central location. Additionally, on some ships you will find lighting, steering, and general-alarm controls housed in the ship-control console.

COMPASSES

The best known and most widely used navigational instrument is the compass. Without it, precise information on headings and directions would be almost impossible to obtain. Compasses were used even before the days of Columbus, and they remain indispensable to today's Navy.

A compass is an instrument that indicates the fixed point or direction of north. It allows you to judge all other directions by this fixed point to determine the direction in which you are heading.

The Navy uses two main types of compasses: gyroscopic and magnetic. The gyrocompass operates on the principle that a rapidly spinning object is balanced at its center of gravity, much as a spinning top stands on its point. The gyrocompass is designed to point toward true north, although it may have a slight mechanical error (for which an allowance is made). On the other hand, the magnetic compass is controlled primarily by the magnetic properties of the earth; therefore, it tends to point toward the magnetic north pole.

GYROCOMPASS

The gyrocompass is unaffected by magnetic influence. When in proper working order, it points constantly to the true rather than the magnetic north pole.

The gyrocompass may have a slight mechanical error of 1 or 2 degrees, but the error is computed easily. Since the error remains constant for any heading, it doesn't interfere with the instrument's practical value.

Most shipboard installations consist of one or more master gyros located in close proximity to the steering station. The indications of the gyro are transmitted electrically to repeaters located on the bridge wings, at conning stations, and at other necessary points.

Despite the excellence of the gyro mechanism, the magnetic compass (NOT the gyro) is standard equipment aboard ships. Since the gyrocompass is powered by electricity, it would be useless if the ship experienced a power loss. The gyrocompass is also an extremely complicated, expensive, and delicate instrument that is subject to mechanical failure. Some gyros, for instance, become erratic after a ship makes a series of sharp turns at high speeds. For this reason, the magnetic compass remains the reliable standby. It constantly checks the performance of the gyrocompass and stands ready at all times to take over if the gyrocompass fails.

MAGNETIC COMPASS

The magnetic compass, which is the standard compass on Navy ships, operates through the magnetic attraction of the earth itself.

The magnetic compass is located in the pilothouse. It consists of a magnetized compass needle attached to a circular compass card that is usually 7 1/2 inches in diameter. Although the card appears to move, it actually remains stationary while pointing to the earth's magnetic pole. In reality, the ship is moving under the compass card.

For the magnetic compass to give reliable service, it must be properly installed, maintained, and protected from disturbing magnetic influences.

COMMUNICATION AND RADAR ANTENNAS

From an operational standpoint, communication and radar antennas are a vital part of a ship's equipment. The communication antennas provide us with command and control capability. Radar antennas are used to electronically search the sea and sky to detect objects beyond visual range. They are also used as navigational aids and for fire control purposes.

The function of a receiving antenna is to intercept a portion of the electromagnetic wave emitted by a transmitting antenna. The function of a transmitting antenna is to convert the radio frequency fed to it by a high-voltage generator into an electromagnetic wave that may be propagated to distant points. Radar antennas both transmit and receive; some communication antennas also have that capability.

Whatever their purpose, antennas are located so that they receive the least possible amount of interference from each other and from the ship's structure. Most of the masts, stacks, and other structures abovedeck are grounded to the ship's hull and, through the hull, to the water. For an antenna to obtain adequate coverage, it must be installed so that the electromagnetic radiation pattern from grounded structures causes minimum distortion. Radar antennas usually rotate and are normally mounted on platforms.

Also associated with the radar are radar repeaters. While not actually a radar, they receive input from a radar. They are located in different areas from the radar, such as on the bridge or in the combat information center.

Some typical shipboard communication antennas include wire, whip, and high-frequency antennas. Wire and whip antennas are designed to operate through frequencies in the medium to high range. Ships need various types of antennas to ensure their use of the widest possible range of available frequencies consistent with available space.

SUMMARY

In this chapter you have learned about various external equipment found aboard naval ships. Any ship, no matter what its mission, must be capable of mooring or anchoring. Hence, all ships must have ground tackle.

Hopes are that survival equipment will never be needed; however, all ships must have appropriate survival gear available.

Although each ship class has a different bridge design with different equipment, all have a bridge in which the movement of the ship is controlled. Just as each ship is run by the bridge watch team, officers in tactical command must be able to communicate their orders to all ships assigned. For this purpose, communication and radar antennas are placed on all naval ships.

Entire books could be written on many of the pieces of equipment found on a ship. This chapter has exposed you to only a few of them.

REFERENCES

Basic Military Requirements, NAVEDTRA 12043, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1992.

Seaman, NAVEDTRA 10120-J, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1986.

CROW'S NEST

THE CROW (THE BIRD, NOT THE RATING BADGE) WAS AN ESSENTIAL PART OF THE EARLY SAILORS' NAVIGATION EQUIPMENT. THESE LAND-LUBBING FOWL WERE CARRIED ON BOARD TO HELP THE NAVIGATOR DETERMINE WHERE THE CLOSEST LAND LAY WHEN THE WEATHER PREVENTED SIGHTING THE SHORE VISUALLY. IN CASES OF POOR VISIBILITY, A CROW WAS RELEASED AND THE NAVIGATOR PLOTTED A COURSE CORRESPONDING WITH THAT OF THE BIRD'S, BECAUSE IT INVARIABLY HEADED TOWARD LAND.

THE CROW'S NEST WAS SITUATED HIGH IN THE MAIN MAST WHERE THE LOOKOUT STOOD HIS WATCH. OFTEN, HE SHARED THIS LOFTY PERCH WITH A CROW OR TWO SINCE THE CROWS' CAGES WERE KEPT THERE; HENCE THE "CROW'S NEST."

CHAPTER 19

VESSEL TYPES AND CHARACTERISTICS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Describe the terms used to identify Navy ships.
2. Identify the ships included in the warship category.
3. Describe the roles of various types of naval ships.
4. Describe the purpose and use of underway replenishment in the Navy.

SIGNIFICANT DATES

9 Sep. 1841	Congress authorizes the first iron ship in the U.S. Navy.
17 Oct. 1888	The keel is laid and construction begun on the battleship *Maine*.
16 Dec. 1907	The first fleet of warships to circle the globe, the Great White Fleet, leaves Hampton Roads, Virginia.
20 Mar. 1922	The first aircraft carrier, USS *Langley*, is commissioned.

The purpose of this chapter is to acquaint you with the major classes of ships operated by the Navy. We will describe the major types of ships and give their characteristics and missions.

Before describing the ship types, however, we must give some background information about ships in general. We must also explain some of the terminology associated with ships.

SHIP IDENTIFICATION

Each Navy ship is identified by name and designation. In USS *Forrestal* (CV-59), for example, USS means United States ship. CV is the designation—it indicates this type of ship is a multipurpose aircraft carrier. The ship's identifying or hull number (59) is a general indication of the number of ships of the same type that have been built. (Gaps occur in the sequence of numbers of most types because of the cancellation of shipbuilding orders.) A ship's hull number never changes unless its designation also changes, and it doesn't always change then.

SHIP SIZE

The size of a ship usually is given in terms of its displacement in long tons. Displacement means the weight of the volume of water that the ship displaces when afloat; in other words, the weight of a ship by itself. The Navy uses full load displacement, which describes the condition of the ship complete and ready to deploy. All weights given in this chapter are full load displacement unless otherwise noted.

SHIP ARMAMENT

Armament describes the offensive weapons a ship carries: guns, rockets, guided missiles, and planes.

SHIP ARMOR

Armor means protective armor: special steel installed along the sides of the ship, on a deck, and on some gun mounts and turrets.

SHIP SPEED

The speed of a ship is stated in knots, a knot being 1 nautical mile per hour. When a ship travels at 20 nautical miles an hour, its speed is said to be 20 knots (but never 20 knots per hour). A statute (or land) mile is 5,280 feet. A nautical mile is about 6,080 feet, or roughly 2,000 yards. A ship traveling at 20 knots is, therefore, traveling at the rate of about 23 miles per hour.

SHIP CLASS

Ships are said to be of a particular class. Do not confuse this characteristic with type, which is shown by a ship's designation. The *Forrestal*, for example, was the first of several aircraft carriers of the same general advanced type and configuration to be completed. The next three carriers completed after the *Forrestal* were of the same type and class. Later multipurpose aircraft carriers (CVs) or multipurpose aircraft carriers (nuclear propulsion) (CVNs) of other types were different classes (such as the Kitty Hawk class and the Nimitz class).

SHIP CATEGORIES

Ships of the U.S. Navy are divided into four categories: combatant ships, auxiliary ships, combatant craft, and support craft. Tables 19-1 and 19-2 show the classifications of naval ships and craft.

COMBATANT SHIPS

Combatant ships, depending on size and type, may have missions other than simply "slugging it out" with an enemy ship. Combatant ships are of two types: warships and other combatants.

WARSHIPS

Most warships are built primarily to attack an enemy with gunfire, missiles, or other weapons. There are exceptions, however, which you will see as we go along. The warship category includes the following:

1. Aircraft carriers
2. Surface combatants
   a. Battleships
   b. Cruisers
   c. Destroyers
   d. Frigates
3. Submarines

Aircraft Carriers

Aircraft carriers are of three kinds: multipurpose aircraft carriers (CVs), multipurpose aircraft carriers (nuclear propulsion) (CVNs), and training carriers (AVTs).

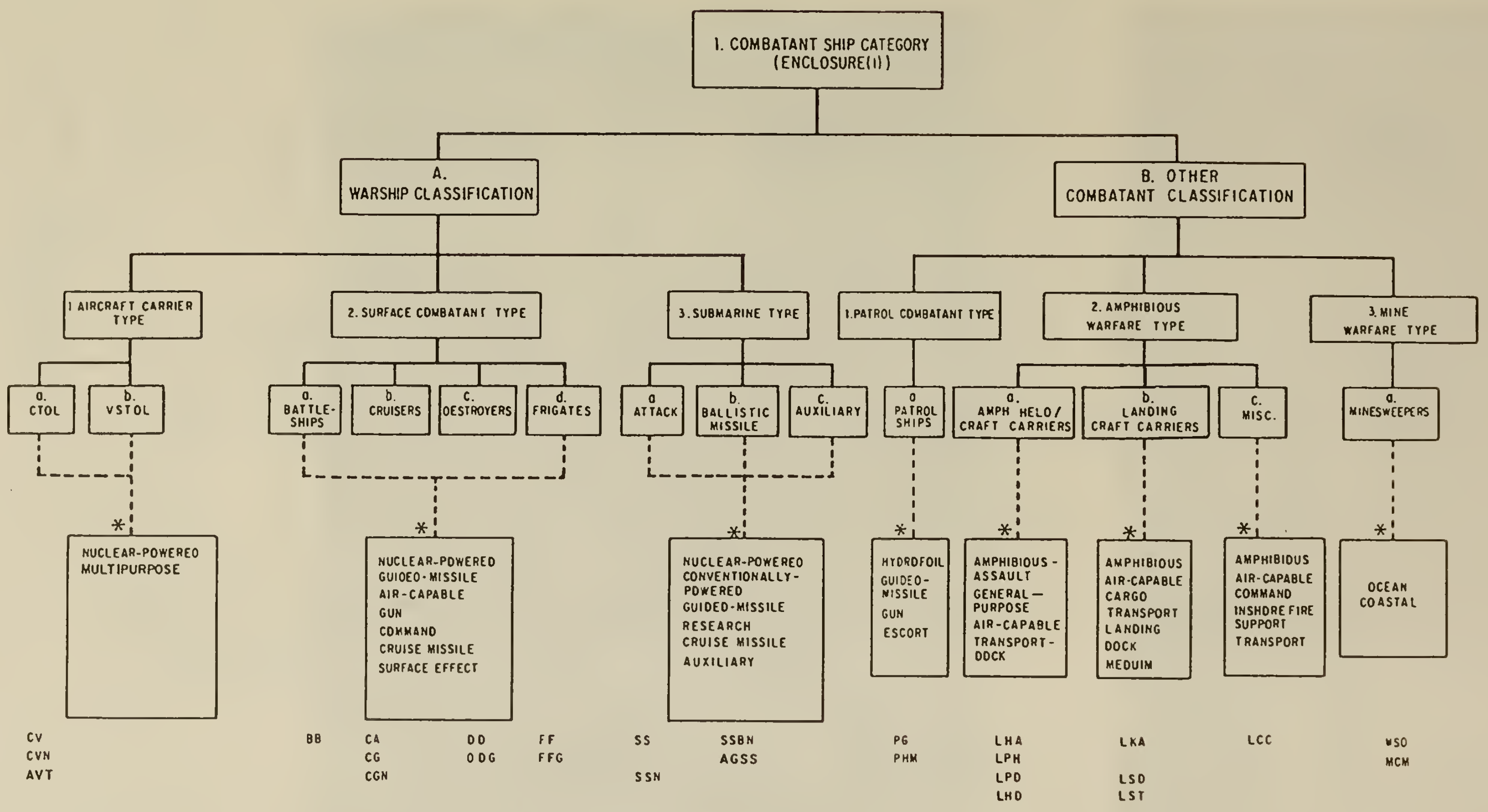
The job of the CV or CVN is to carry, launch, retrieve, and handle combat aircraft quickly and effectively. The aircraft carrier can approach the enemy at high speed, launch planes for the attack and recover them, and retire before its position can be determined. The aircraft carrier is an excellent long-range offensive weapon that is the center of the modern naval task force or task group. Figure 19-1 shows a Nimitz-class carrier.

Carriers built before 1950 displace from 33,000 to 51,000 tons. Those built in the 1950s (Forrestal-class) displace 60,000 tons. The Nimitz-class nuclear-powered CVNs displace about 93,400 tons (combat load). You can see that as new carriers are built, they become heavier and, in general, larger.

The wartime complement (including the CAG, or carrier air group) of each new carrier is about 6,000, including officers and enlisted personnel—an increase of from 500 to 1,000 persons over the older ships. The CVs operate from 70 to 100 planes, depending on the size and type of aircraft. Flight decks are roughly 1,000 feet long and from 200 to 250 feet wide. In addition to planes, armament consists of various types of guided missiles.

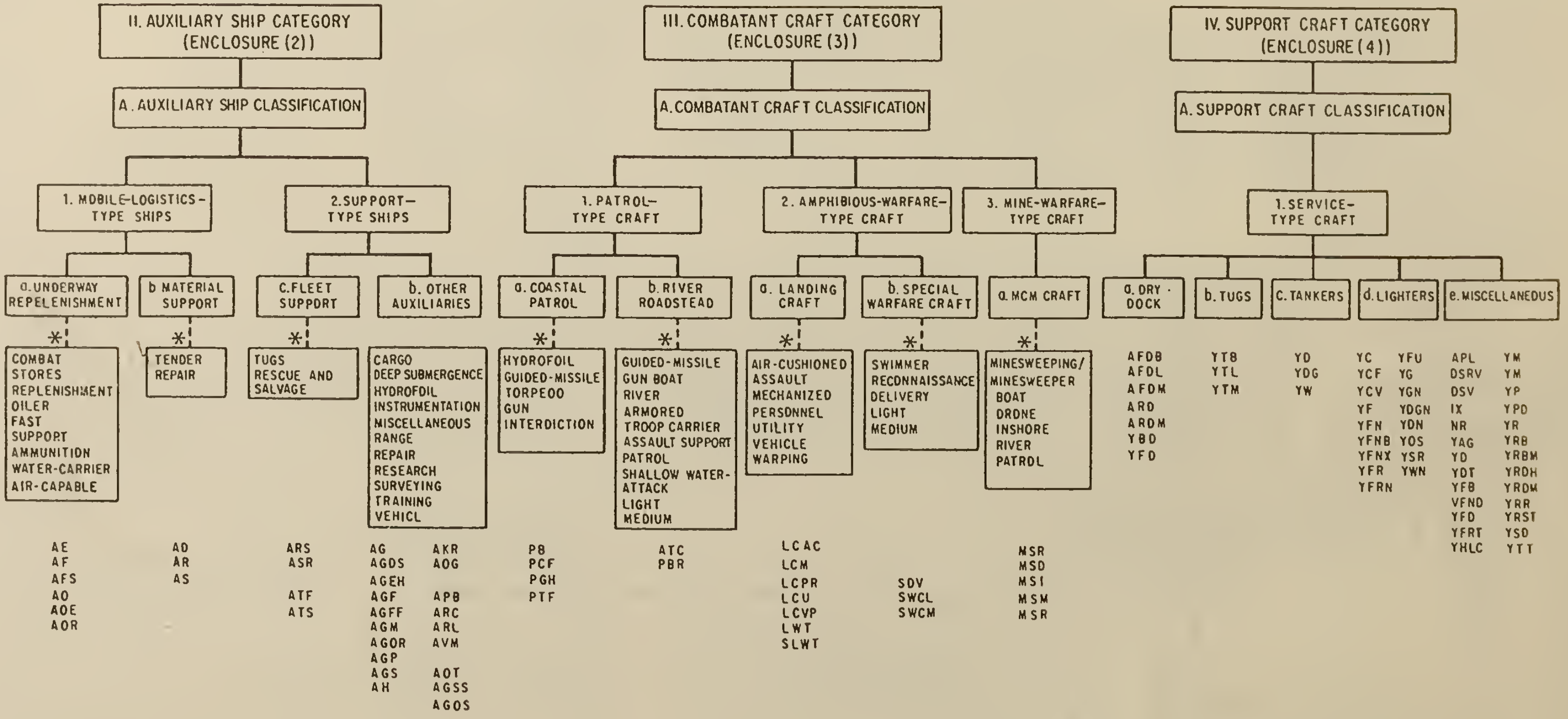
Carriers have angled flight decks and steam catapults and are able to launch and recover planes simultaneously. They have a large hangar deck for plane stowage, four deck-edge elevators to rapidly move aircraft between the hangar and flight decks, extensive repair shops, storerooms, and fast-fueling equipment. They are noted for their speed (all carriers can proceed at over 30 knots), endurance, plane-carrying capacity, and maintenance capability. They are also noted for their sea-keeping ability (ability to successfully and safely execute a mission at sea despite adverse environmental factors).

Table 19-1.—Ship Categories


1. COMBATANT SHIP CATEGORY (ENCLOSURE(1))
A. WARSHIP CLASSIFICATION
B. OTHER COMBATANT CLASSIFICATION
1 AIRCRAFT CARRIER TYPE
2. SURFACE COMBATANT TYPE
3. SUBMARINE TYPE
1. PATROL COMBATANT TYPE
2. AMPHIBIOUS WARFARE TYPE
3. MINE WARFARE TYPE
a. CTOL
b. VSTOL
a. BATTLE-SHIPS
b. CRUISERS
c. DESTROYERS
d. FRIGATES
a ATTACK
b. BALLISTIC MISSILE
c. AUXILIARY
a PATROL SHIPS
a. AMPH HELO/ CRAFT CARRIERS
b. LANDING CRAFT CARRIERS
c. MISC.
a. MINESWEEPERS
*
NUCLEAR-POWERED
MULTIPURPOSE
*
NUCLEAR-POWERED
GUIDED-MISSILE
AIR-CAPABLE
GUN
COMMAND
CRUISE MISSILE
SURFACE EFFECT
*
NUCLEAR-POWERED
CONVENTIONALLY-POWERED
GUIDED-MISSILE
RESEARCH
CRUISE MISSILE
AUXILIARY
*
HYDROFOIL
GUIDED-MISSILE
GUN
ESCORT
*
AMPHIBIOUS-ASSAULT
GENERAL—PURPOSE
AIR-CAPABLE
TRANSPORT-DOCK
*
AMPHIBIOUS
AIR-CAPABLE
CARGO
TRANSPORT
LANDING
DOCK
MEDUIM
*
AMPHIBIOUS
AIR-CAPABLE
COMMAND
INSHORE FIRE SUPPORT
TRANSPORT
*
OCEAN
COASTAL
CV
CVN
AVT
BB
CA
CG
CGN
DD
DDG
FF
FFG
SS
SSN
SSBN
AGSS
PG
PHM
LHA
LPH
LPD
LHD
LKA
LSD
LST
LCC
MSO
MCM

* THE ABOVE CATEGORIES CAN BE FURTHER DEFINED AND ASSIGNED TO A SUBCATEGORY BY THE ADDITION OF ONE OR MORE OF THESE ADJECTIVES

Table 19-2.—Ship Categories


II. AUXILIARY SHIP CATEGORY (ENCLOSURE (2))
A. AUXILIARY SHIP CLASSIFICATION
1. MOBILE-LOGISTICS-TYPE SHIPS
2. SUPPORT-TYPE SHIPS
a. UNDERWAY REPELENISHMENT
*
COMBAT
STORES
REPLENISHMENT
OILER
FAST
SUPPORT
AMMUNITION
WATER-CARRIER
AIR-CAPABLE
AE
AF
AFS
AO
AOE
AOR
b MATERIAL SUPPORT
*
TENDER
REPAIR
AD
AR
AS
C. FLEET SUPPORT
*
TUGS
RESCUE AND SALVAGE
ARS
ASR
ATF
ATS
b. OTHER AUXILIARIES
CARGO
DEEP SUBMERGENCE
HYDROFOIL
INSTRUMENTATION
MISCELLANEOUS
RANGE
REPAIR
RESEARCH
SURVEYING
TRAINING
VEHICL
AG
AGDS
AGEH
AGF
AGFF
AGM
AGOR
AGP
AGS
AH
AKR
AOG
APB
ARC
ARL
AVM
AOT
AGSS
AGOS
III. COMBATANT CRAFT CATEGORY (ENCLOSURE (3))
A. COMBATANT CRAFT CLASSIFICATION
1. PATROL-TYPE CRAFT
2. AMPHIBIOUS-WARFARE-TYPE CRAFT
3. MINE-WARFARE-TYPE CRAFT
a. COASTAL PATROL
*
HYDROFOIL
GUIDED-MISSILE
TORPEOO
GUN
INTERDICTION
PB
PCF
PGH
PTF
b. RIVER ROADSTEAD
*
GUIDED-MISSILE
GUN BOAT
RIVER
ARMORED
TROOP CARRIER
ASSAULT SUPPORT
PATROL
SHALLOW WATER-ATTACK
LIGHT
MEDIUM
ATC
PBR
a. LANDING CRAFT
*
AIR-CUSHIONED
ASSAULT
MECHANIZED
PERSONNEL
UTILITY
VEHICLE
WARPING
LCAC
LCM
LCPR
LCU
LCVP
LWT
SLWT
b. SPECIAL WARFARE CRAFT
*
SWIMMER
RECONNAISSANCE
DELIVERY
LIGHT
MEDIUM
SDV
SWCL
SWCM
a. MCM CRAFT
*
MINESWEEPING/
MINESWEEPER
BOAT
DRONE
INSHORE
RIVER
PATROL
MSR
MSD
MSI
MSM
MSR
IV. SUPPORT CRAFT CATEGORY (ENCLOSURE (4))
A. SUPPORT CRAFT CLASSIFICATION
1. SERVICE-TYPE CRAFT
a. DRY · DOCK
AFDB
AFDL
AFDM
ARD
ARDM
YBD
YFD
b. TUGS
YTB
YTL
YTM
C. TANKERS
YD
YOG
YW
d. LIGHTERS
YC
YCF
YCV
YF
YFN
YFNB
YFNX
YFR
YFRN
YFU
YG
YGN
YOGN
YON
YOS
YSR
YWN
e. MISCELLANEOUS
APL
DSRV
DSV
IX
NR
YAG
YD
YDT
YFB
VFND
YFD
YFRT
YHLC
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YPD
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YRB
YRBM
YRDH
YRDM
YRR
YRST
YSD
YTT

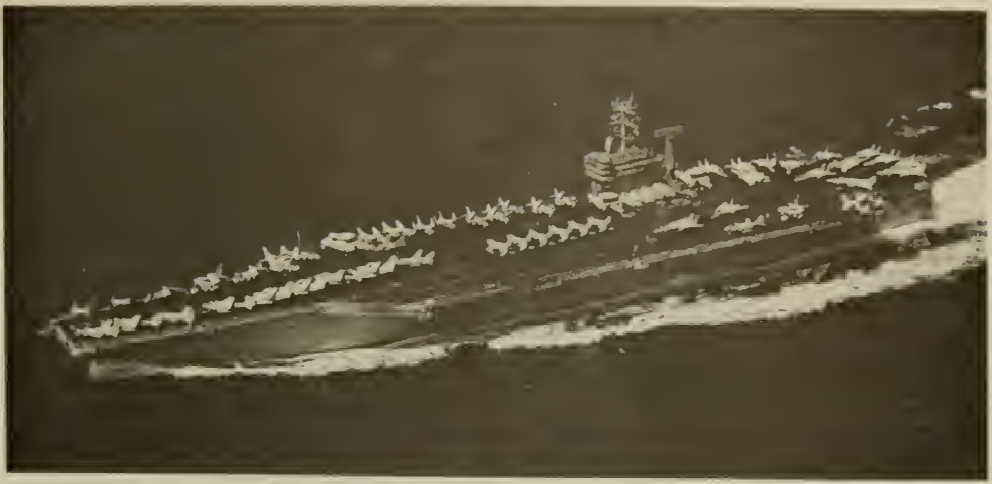

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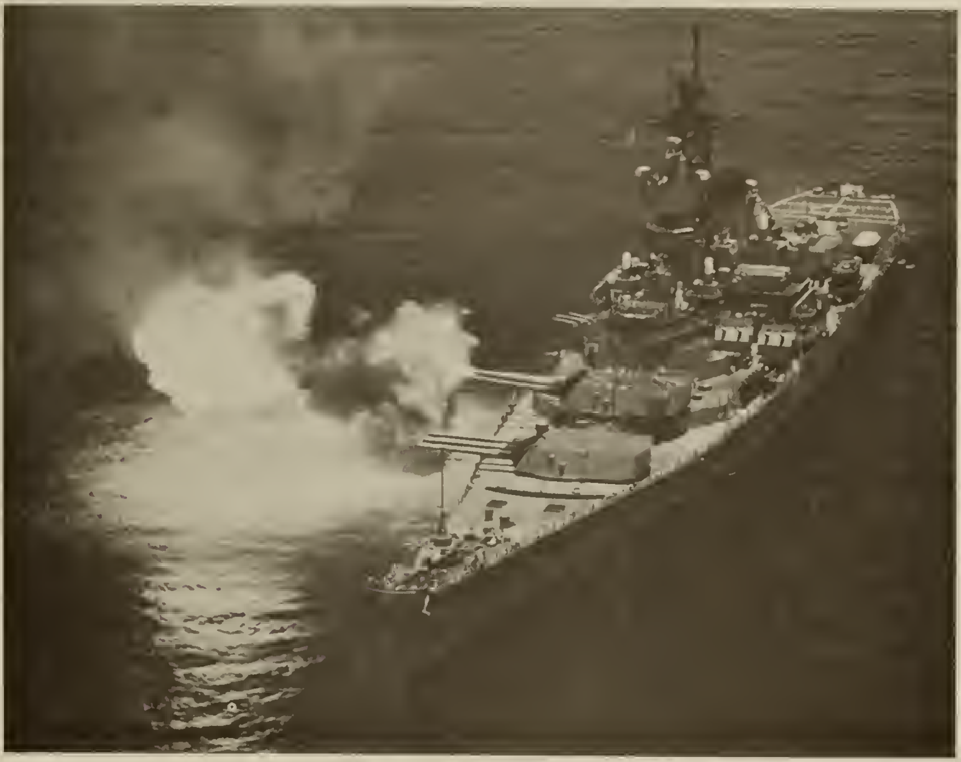
Figure 19-1.—Aircraft carrier USS Dwight D. Eisenhower (CVN-69) under way with embarked aircraft.



134.108
Figure 19-2.—USS Iowa (BB-61) firing its no. 2 turret.

Surface Combatants

Surface combatant ships are battleships, cruisers, destroyers, and frigates.

BATTLESHIPS.—Battleships (BBs) participated in few surface engagements in World War II. However, with their large number of antiaircraft guns, they proved to be excellent support ships in carrier task forces. They provided gunfire support for amphibious landings in both the Pacific and European theaters—only their large-caliber guns could knock out heavily reinforced gun emplacements. They also provided gunfire support in the Korean War. The *New Jersey* was activated for a short period of service during the Vietnam War and was then decommissioned. Today, four BBs, the *Iowa* (fig. 19-2), *New Jersey*, *Missouri*, and *Wisconsin*, are in active service.

The United States traditionally named battleships after states. Since our nation is unlikely to build any more battleships, it now gives state names to cruisers, such as the *California* (CGN-36), and submarines (SSBNs), such as the *Ohio* and the *Michigan*.

CRUISERS.—Cruisers are medium-sized, general-utility ships. They have a large cruising range and are capable of high speeds (over 30 knots). They serve as protective screens against surface and air attacks and also provide gunfire support for land operations. Because of modern high-performance aircraft and guided missiles, the cruisers in service today are designed to carry guided missiles. The two basic types of cruisers are the guided-missile cruiser (CG) and guided-missile cruiser (nuclear propulsion) (CGN). Cruisers displace about 10,000 to 21,500 tons. The CG carries guns as well as missiles. The CG-47 class (fig. 19-3) is the first to employ vertical launch missile tubes and the shipboard integrated AAW combat weapons system (Aegis). CGNs are the same as the CGs except that their main engines are nuclear powered.

At one time cruisers were named after cities; but after the completion of the *Long Beach* (CGN-9), the names of cities were assigned to newly constructed auxiliary ships (AOEs/AORs/AFSs). The names of cities are also given to attack submarines, beginning with the Los Angeles (SSN-688) class. Several active cruisers, formerly classified as guided-missile frigates and named after Navy and Marine Corps personnel and Secretaries of the Navy, have retained their destroyer-type names. Other cruisers, beginning with the CGN-36, are named after states. The CG-47-class cruisers are named after revolutionary war battles.

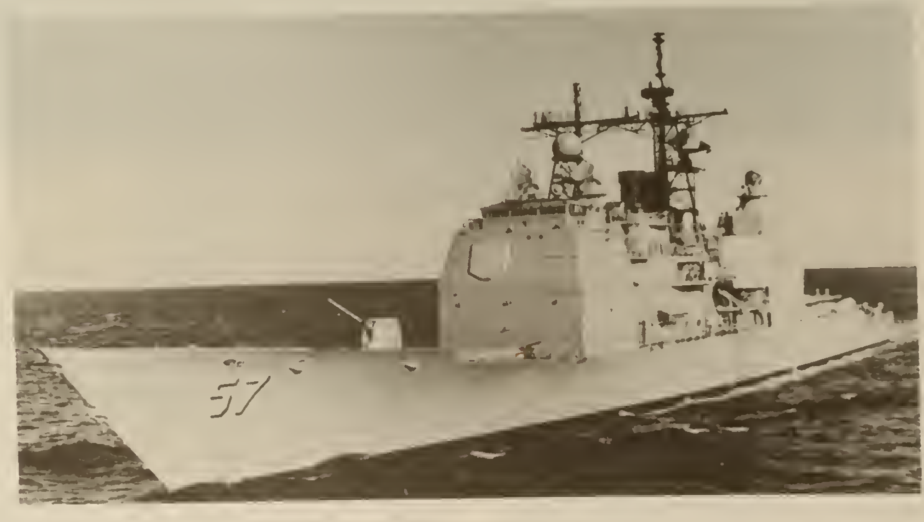
DESTROYERS.—Destroyers (DDs) and guided-missiles destroyers (DDGs) are multipurpose ships that are useful in almost any kind of naval operation. They are fast ships with a variety of armament, but little or no armor. For protection, they depend on their speed and mobility. Their displacement varies from about 4,500 tons to 7,800 tons.

The principal mission of destroyers is to operate offensively and defensively against submarines and surface ships and to take defensive action against air attacks. They also provide gunfire support for amphibious assaults and perform patrol, search, and rescue missions.

The destroyer's armament consists of 5-inch guns and a variety of antisubmarine weapons, such as torpedoes, antisubmarine rockets (ASROCs), and Terrier and Tartar missiles.

Traditionally, destroyers have been named after officers and enlisted personnel of the Navy and Marine Corps and Secretaries of the Navy. Because destroyers make up the Navy's largest group of similar types of ships, we will mention only a few to give you some idea of the several types and classes.

The Navy's destroyer of the future is the Arleigh Burke class (DDG-51) (fig. 19-4). The all-steel construction of the DDG-51 is designed



134.109

Figure 19-3.—USS Lake Champlain (CG-57) under way during sea trials.

from the keel up for survivability. It incorporates many damage control features resulting from lessons learned during the Falkland Islands conflict and from the accidental attack on USS *Stark*. These destroyers also employ the Aegis weapons system and the vertical launch system (VLS).

Destroyers of the Spruance class (fig. 19-5) displace 7,800 tons fully loaded. Each of these ships has two 5″/54-caliber guns, one missile

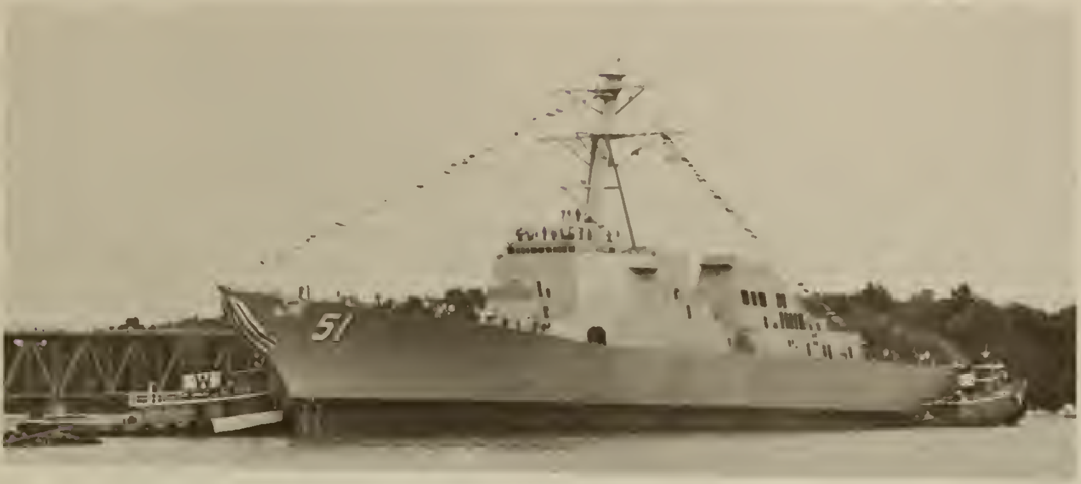


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Figure 19-4.—Newly commissioned guided-missile destroyer USS Arleigh Burke (DDG-51).

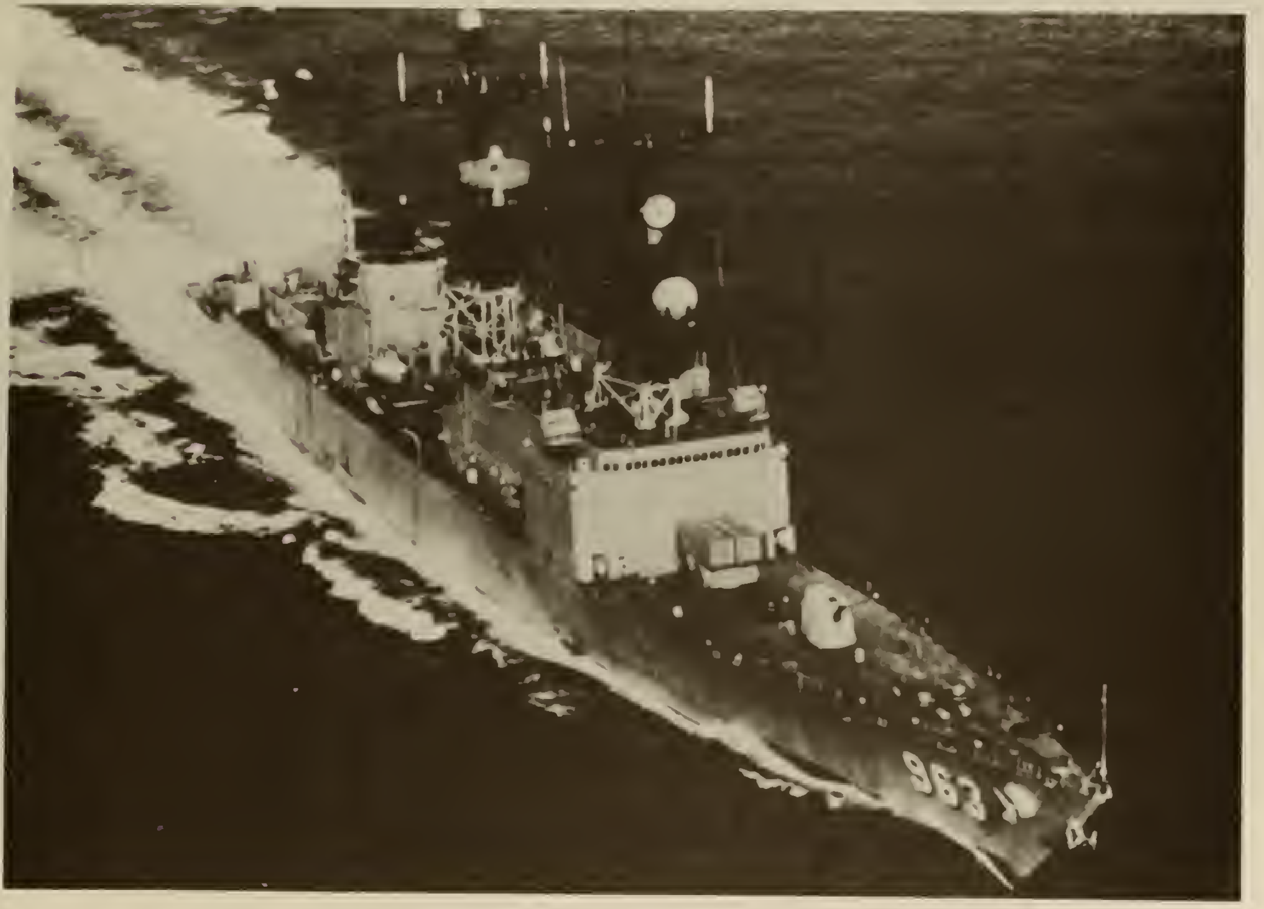

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Figure 19-5.—USS Spruance (DD-963).

launcher for Sea Sparrow missiles, one ASROC launcher, and two Mk 32 triple-torpedo tubes. They also have full helicopter facilities to accommodate the light airborne multipurpose system (LAMPS). The Spruance-class destroyers were the first large U.S. warships to use gas-turbine propulsion. The propulsion system was selected because of its smaller space requirements, rapid replacement capability, and cold-start capability. (The engines can go from "cold iron" to full power in 12 minutes.)

Guided-missile destroyers (DDGs) of the Coontz class were formerly designated frigates. They displace 5,800 tons fully loaded. Each of these ships has one 5″/54-caliber gun mount, one twin-Terrier surface-to-air launcher, one ASROC launcher, and two Mk 32 triple-torpedo tubes.

DDGs of the Charles F. Adams class (fig. 19-6) are considered excellent multipurpose ships. They displace 4,500 tons fully loaded. Each ship has one ASROC launcher, two Mk 32 triple-torpedo tube mounts, and two 5″/54-caliber gun mounts. Some of the ships are equipped with one twin- or one single-Tartar surface-to-air missile launcher. A few of the ships have one multiple-Chaparral missile launcher.

FRIGATES.—The U.S. Navy adopted the classification "frigate" (FF) for ships used for open-ocean escort and patrol. When they were developed during World War II, frigates were classified as destroyer escorts (DEs).

Frigates resemble destroyers in appearance; but they are slower, have only a single screw, and carry less armament. FFs have grown in size from about 1,500 tons displacement to over 4,000 tons, as in the Knox class (FF-1052). Their armament varies from class to class. The Oliver Hazard Perry (FFG-7) class (fig. 19-7.) has a single 76-mm, 62-caliber, dual-purpose gun; a 20-mm Vulcan/Phalanx rapid-fire gun; a single launcher for Harpoon missiles; two SH-2H LAMPS helicopters; and two Mk 32 triple-torpedo tubes.

The Knox class (fig. 19-8) has one Sea Sparrow missile launcher, one 5″/54-caliber gun, one 20-mm Vulcan/Phalanx gun, one ASROC launcher, and four Mk 32 fixed torpedo tubes. The Knox class also has facilities for one SH-2H LAMPS helicopter.

Submarines

The basic designation SS indicates a submarine that is a conventional (diesel-powered) ship. The letter *N* following the basic designation (SSN) indicates a submarine with nuclear propulsion. The letter *B* (SSB) indicates a submarine with ballistic missiles and nonnuclear propulsion. The letters *BN* (SSBN) indicate a submarine with ballistic missiles and nuclear propulsion.

The mission of nuclear attack submarines (SSNs) is to locate and destroy enemy ships and submarines. They also act as scouts, deliver supplies and personnel to locations in enemy territory, and perform rescue missions. Fleet

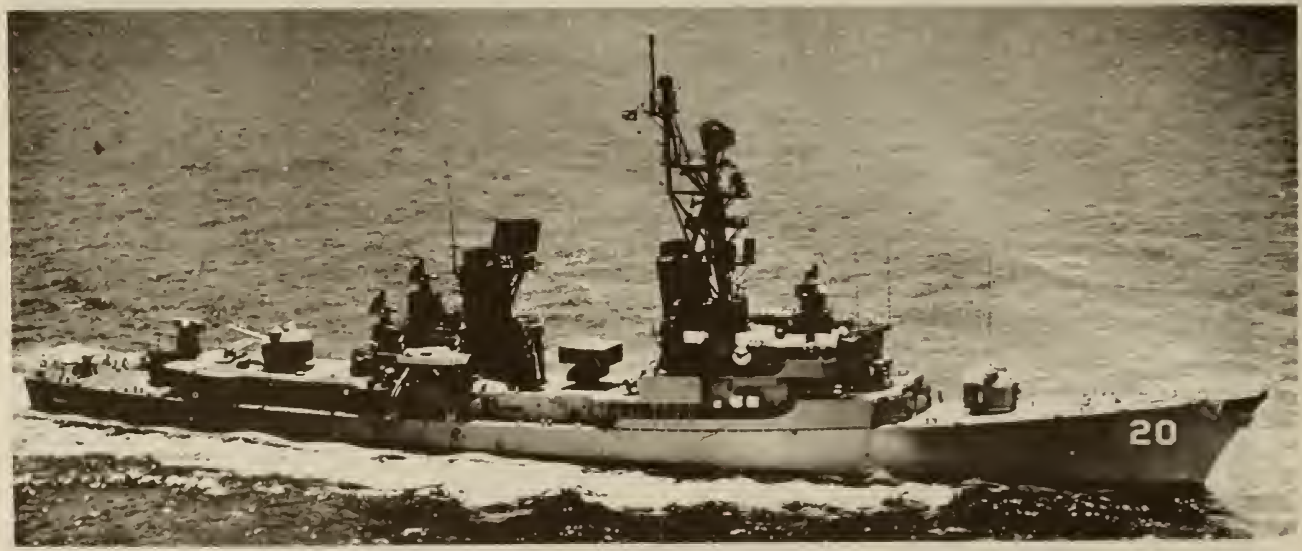

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Figure 19-6.—Guided-missile destroyer USS Goldsborough (DDG-20) of the Charles F. Adams class.

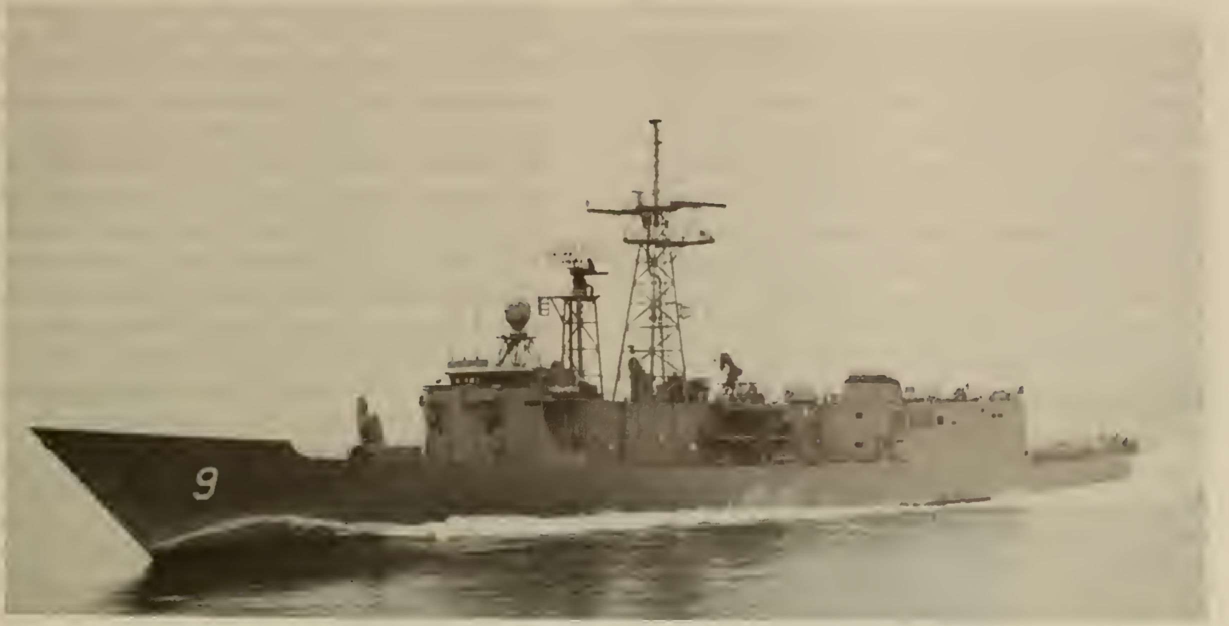

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Figure 19-7.—Guided-missile frigate USS Wadsworth (FFG-9) of the Oliver Hazard Perry class.

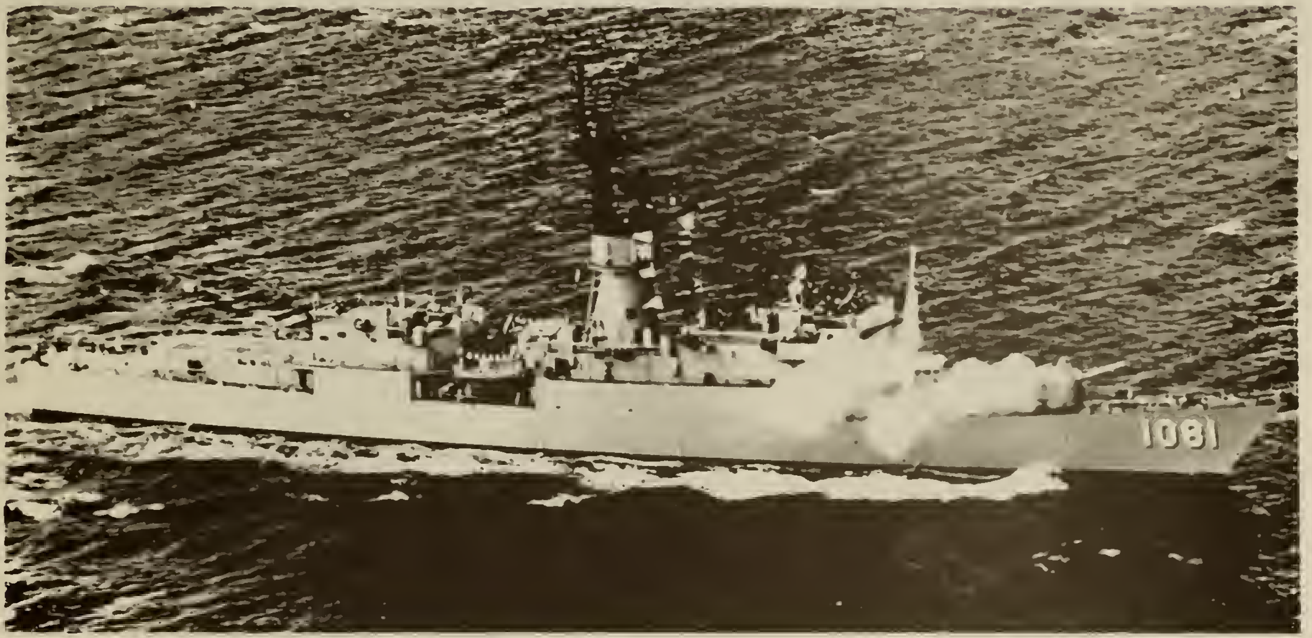

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Figure 19-8.—Frigate USS Alywin (FF-1081) of the Knox class firing ASROC.

ballistic missile submarines (SSBNs) deliver ballistic missile attacks against assigned targets from either a submerged or surfaced condition.

Nuclear propulsion has turned the submersible ship into a true submarine that no longer requires frequent replenishment of fuel and supplies. (Examples: (1) The *Nautilus*, our first SSN, steamed over 62,000 miles without refueling; (2) during a test, the *Seawolf* remained submerged for 60 days; (3) the *Triton* traveled around the globe under water, remaining submerged for 83 days.) The submarine's crew does not depend on the earth's atmosphere for air. Units of air-revitalization equipment clean the air continuously. Electrolytic oxygen generators permit the submarine to extract its own oxygen from seawater.

In July 1960 USS *George Washington* (SSBN-598) successfully launched, for the first time, a Polaris guided missile from under water. This shot radically changed the old concept of submarine warfare, which was simply to sink enemy ships or submarines with torpedoes. Now nuclear-powered, high-speed submarines are able to cruise for months at a time. They can launch an effective attack against targets on shore while remaining virtually immune to retaliation. All submarines now being built have nuclear propulsion.

The oldest SSBNs are being decommissioned or converted to fulfill SSN duties. Other SSBNs are being converted to carry Trident missiles. The newest SSBN class, the Ohio class, carries Trident II missiles. The Ohio class is the largest undersea

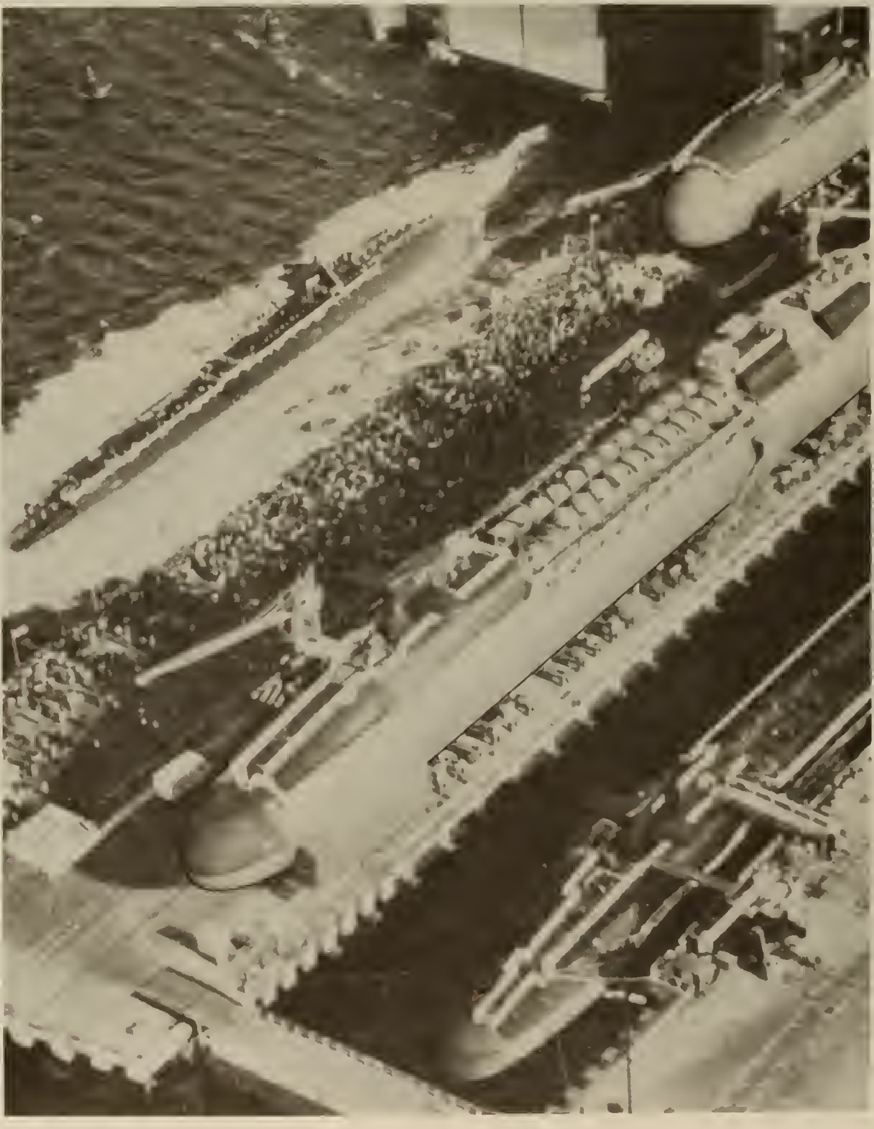

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Figure 19-9.—Two Ohio-class SSBNs under construction and a Los Angeles-class SSN being launched.

craft developed by the Navy. It displaces 16,600 to 18,700 tons. The size of the Trident submarine is dictated by the larger size missile required for ranges of 4,000 to 6,000 miles and the larger reactor plant required to drive the ship. The submarine has 24 tubes for the Trident II missile and 4 torpedo tubes located in the bow.

A nuclear-powered attack submarine, like that of the Sturgeon class, displaces 3,800 to 4,700 tons and has four torpedo tubes. The new Los Angeles-class fast-attack submarines displace about 7,000 tons and have four torpedo tubes. Notice in figure 19-9 how much larger the SSBN is than the SSN. You can also see the bow of a second Los Angeles-class SSN at the top right of the figure. Although possessing different missions, both are super-powered submarines.

Early submarines were named after marine life. The first SSBNs, however, were given names of persons well known in American history, like George Washington, *Patrick Henry*, and *Lafayette*.

New fast-attack submarines (SSNs) are named after American cities—like the *Los Angeles*, *Baton Rouge*, and *Memphis*. The Tridents (SSBNs) are being named after American states—like the *Ohio* and the *Michigan*.

Other Combatants

Other ships classified as combatants are patrol combatant ships, amphibious warfare ships, and mine warfare ships.

PATROL COMBATANTS.—Patrol combatants fall into two categories: patrol combatant (PG) and guided-missile patrol combatant (hydrofoil) (PHM).

The patrol combatant was developed because of increased emphasis on counterinsurgency and unconventional warfare operations. The PG is designed for good sea-keeping qualities, long endurance, a high payload, and high speed capabilities. Although the PG is not a torpedo boat, it can operate in shallow coastal waters and is capable of combating coastal shipping as well as enemy torpedo boats.

The main propulsion plant of the gunboat uses a combination of diesel and gas (turbine) (CODAG). This combination achieves the greatest possible fuel economy and maximum endurance time on station. Two diesel engines drive the twin propellers during maneuvering and cruising speeds, the gunboat's normal operating condition. When high speeds are needed, the diesels are declutched and the gas turbine is clutched to the propeller shafts for speeds over 40 knots.

The PG is constructed of aluminum and fiberglass, is 165 feet long, has a beam of 24 feet, and displaces 225 to 245 tons. Its armament consists of one 3″/50-caliber gun, one 40-mm gun, and four 50-caliber twin machine guns.

The newer patrol combatant ships are guided-missile patrol combatant (hydrofoil) ships (PHM). Figure 19-10 shows the first of the class,

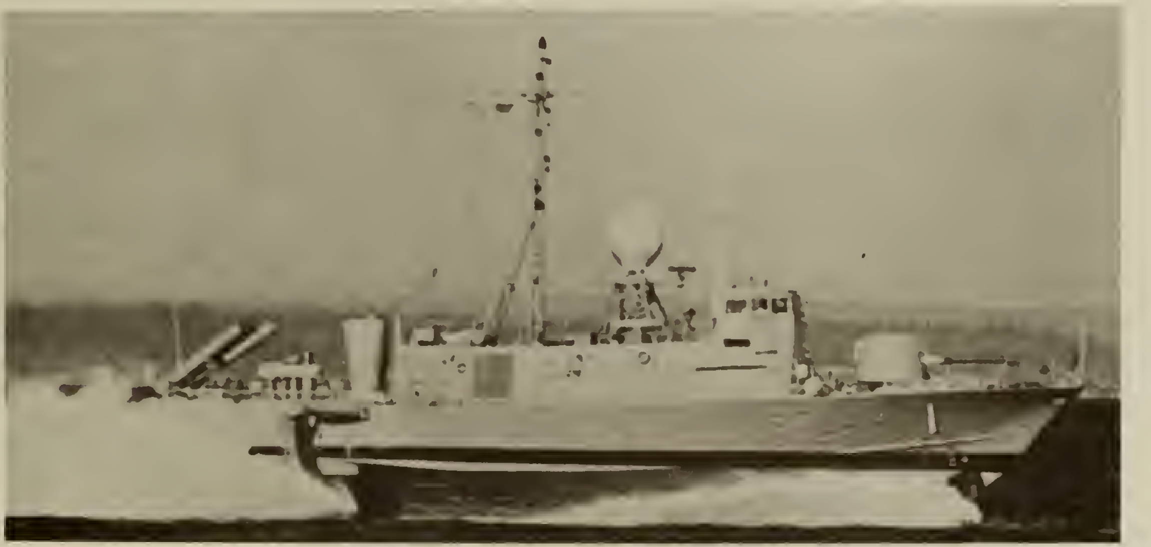

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Figure 19-10.—Uss Pegasus (PHM-1), a patrol hydrofoil missile ship.

USS *Pegasus*. These ships can operate in all weather conditions and can move in heavy seas with a stability that is usually found only in much larger ships. The Pegasus-class PHM displaces 231 tons; is 131 feet long and 28 feet wide; and carries a crew of 21, including officers and enlisted personnel. It is designed for strike, patrol, and surveillance missions. Its armament consists of a rapid-fire, 76-mm gun and an 8-tube Harpoon ship-to-ship missile launcher.

AMPHIBIOUS ASSAULT SHIPS.—Amphibious assault ships (general purpose) (LHAs) and amphibious assault ships (multipurpose) (LHDs) can embark, deploy, and land a Marine battalion landing team. They can use helicopters, landing craft, amphibious vehicles, and combinations of these methods.

The newest class of amphibious assault ships is the Wasp class. The USS *Wasp* (LHD-1), shown in figure 19-11, is the largest amphibious ship in the world. It combines many of the features of other amphibious ships into a single ship. The electronic and communications systems of the *Wasp* will allow it to serve as a command post.

Wasp Class Data

Displacement	40,533 tons
Length	844 feet
Beam	106 feet
Draft	28 feet
Shaft horsepower	70,000
Aircraft	33
Accommodations	1,321
Troops	1,894

Also falling under the category of an amphibious assault ship is the Tarawa-class LHA.

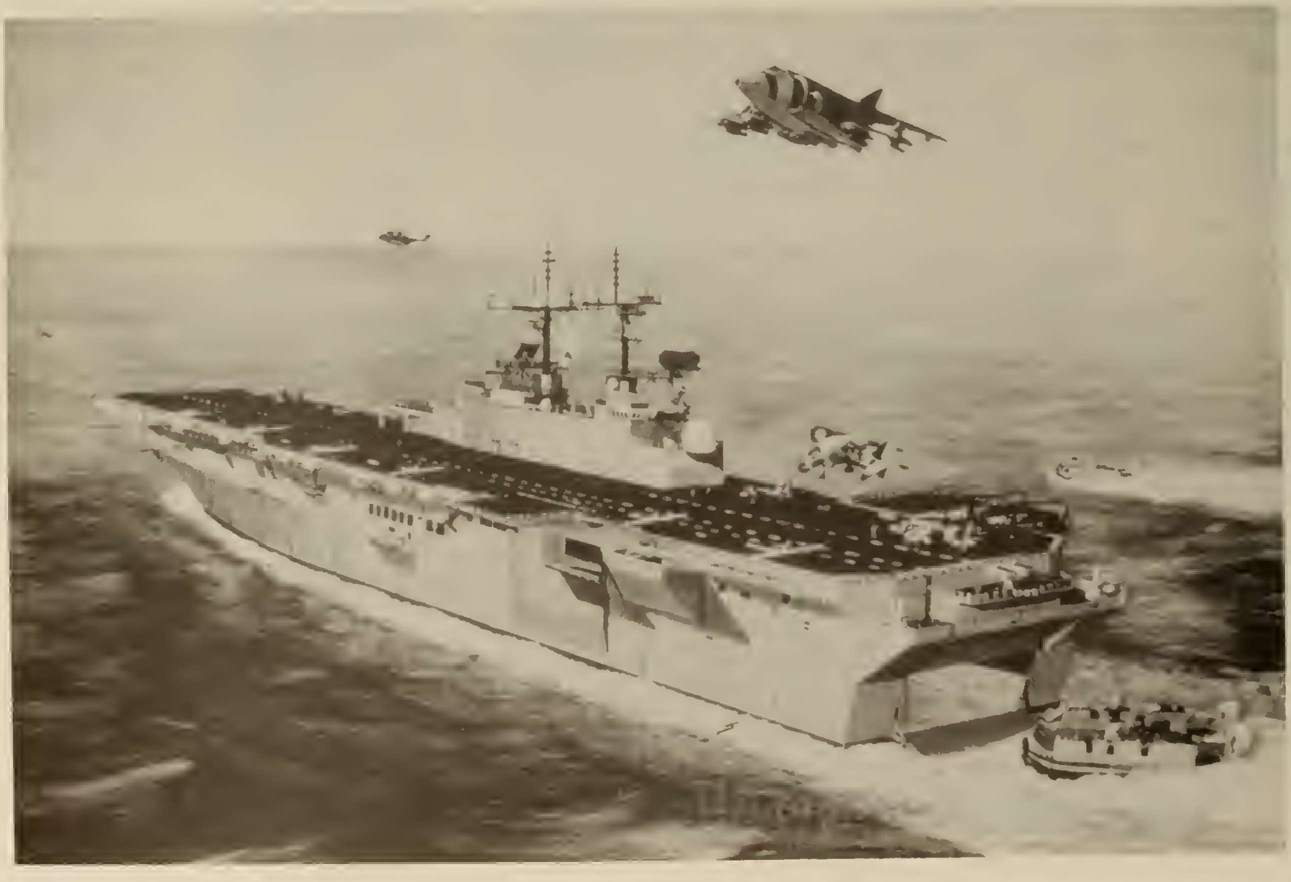

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Figure 19-11.—Artist's conception of USS Wasp (LHD-1).

This LHA combines many of the features of other amphibious ships into a single platform, as does the LHD. Both the LHD and the LHA carry NATO Sea Sparrow missiles and the 20-mm Vulcan Phalanx close-in weapon system (CIWS).

Tarawa Class Data

Displacement	39,300 tons
Length	778 feet
Beam	106 feet
Draft	27.5 feet
Shaft horsepower	70,000
Aircraft	30
Accommodations	800
Troops	1,825

Another amphibious assault ship (LPH) designed to embark, transport, and land marines by means of transport helicopters is the Iwo Jima class (fig. 19-12). When not used in an amphibious role, LPHs have the capability of assisting in antisubmarine warfare.

Iwo Jima Class Data

Displacement	18,000 tons
Length	602 feet
Beam	84 feet
Draft	29 feet
Shaft horsepower	22,000
Helicopters	20 CH-46s
Accommodations	1,075
Officers/troops	143/1,581

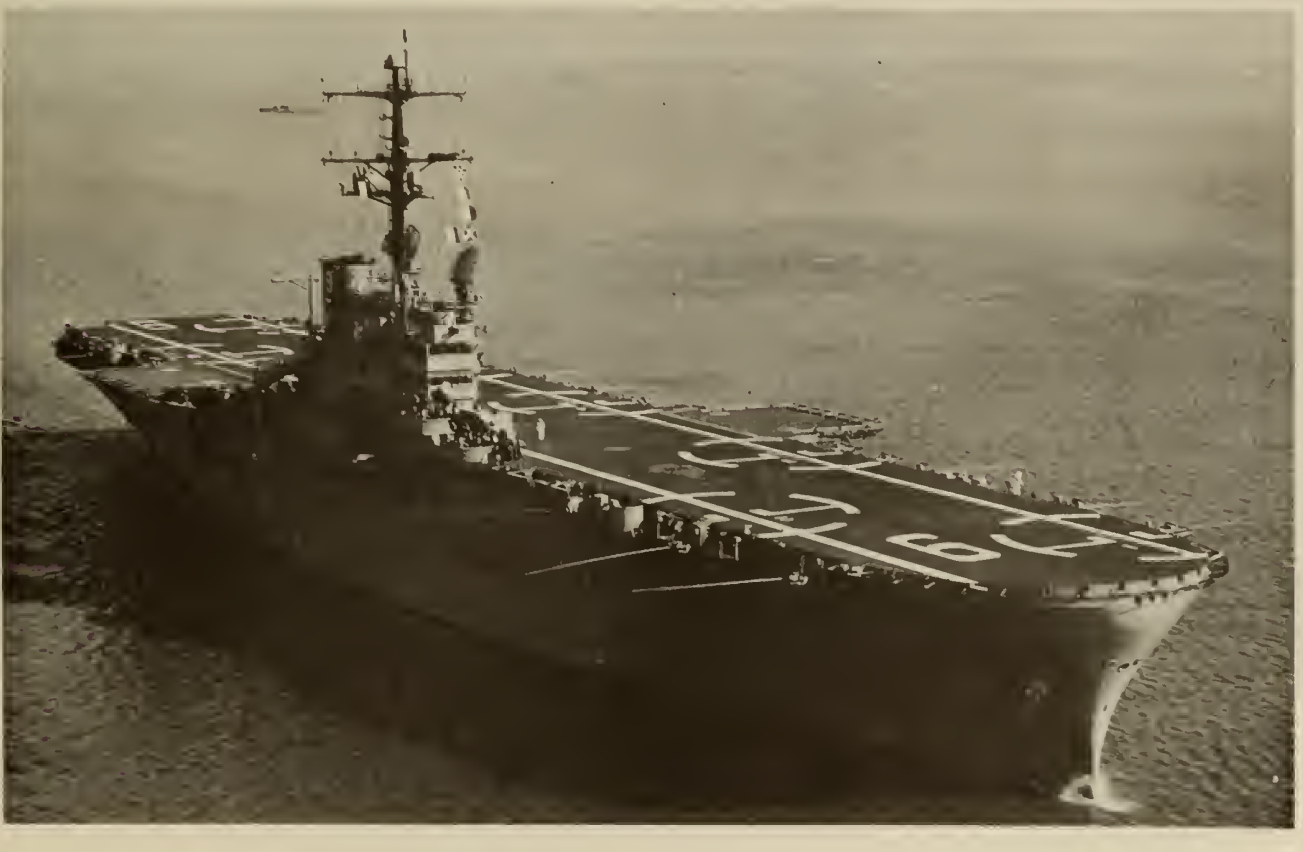

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Figure 19-12.—Amphibious assault ship USS Guam (LPH-9).

AMPHIBIOUS TRANSPORT DOCK SHIPS.—The amphibious transport dock (LPD) (fig. 19-13) achieved a long-sought goal of transporting troops and their equipment in the same ship. With facilities for operating eight helicopters, the LPD frequently serves as a satellite to the LPH during vertical assault operations.

The LPD eliminates the difficulty of off-loading landing craft over the side by transporting them internally and launching them through an opening in the stern. Craft can be launched while the ship is under way or dead in the water. The deck over the well that carries the landing craft provides a platform for six large helicopters. This deck permits the landing of troops by air as well as by landing craft.

Austin Class Data

Displacement	16,900 tons
Length	570 feet
Beam	105 feet
Draft	21.5 feet
Shaft horsepower	24,000
Accommodations	474
Officers/troops	73/888

AMPHIBIOUS CARGO SHIPS.—Amphibious cargo ships (LKAs) carry large quantities of the material and equipment needed to launch an amphibious attack. Such items include guns, provisions, jeeps, trucks, and tanks. Cargo capacity is over 5,000 tons, or about 300 vehicles of various types. These ships are combat-loaded, which means the cargo is placed aboard in the reverse order of off-loading to allow for rapid removal of material that will be needed first. The ship's own landing craft deliver supplies, plus a limited number of troops, to the beach. USS *Charleston* (LKA-113) is shown in figure 19-14.

DOCK LANDING SHIPS.—Dock landing ships (LSDs) can transport and launch a variety of loaded amphibious craft and vehicles plus a limited number of troops. They can provide limited docking and repair services to small ships and craft and are equipped to refuel helicopters operating from the ship's helicopter landing platform. The LSD has, between its wing walls, a well over 300 feet long and about 50 feet wide. Before the craft are launched, the LSD is ballasted down and the well is flooded; the craft are then moved out under their own power. The LSD 28

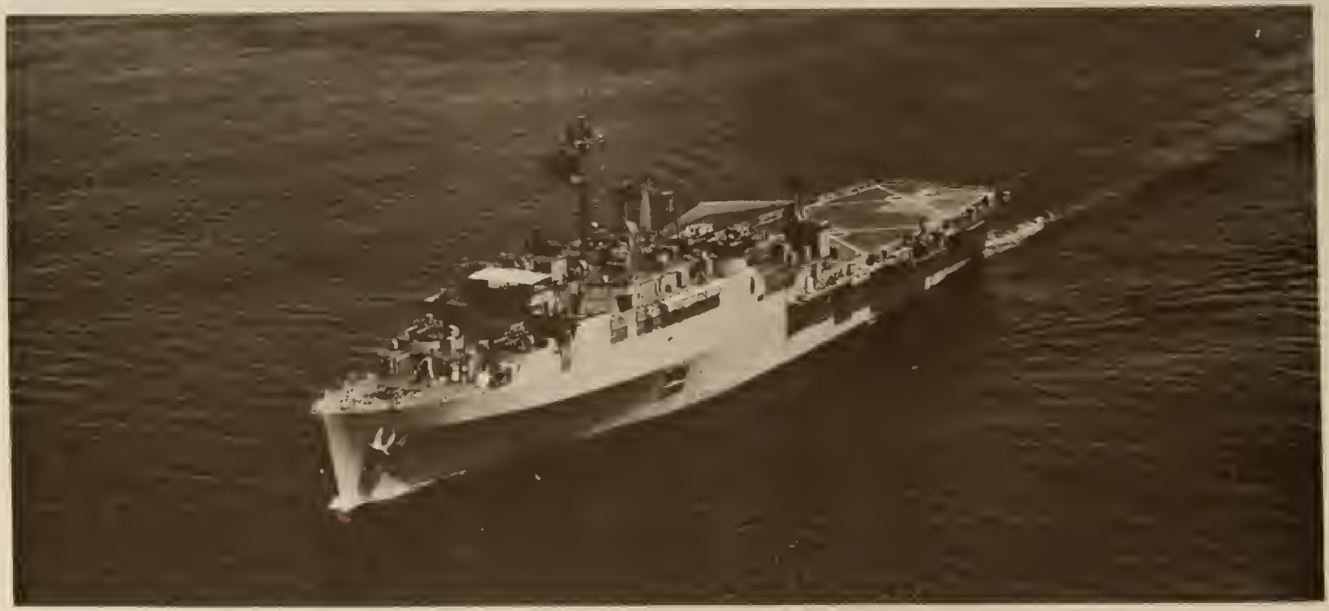

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Figure 19-13.—Amphibious transport dock ship USS *Austin* (LPD-4).

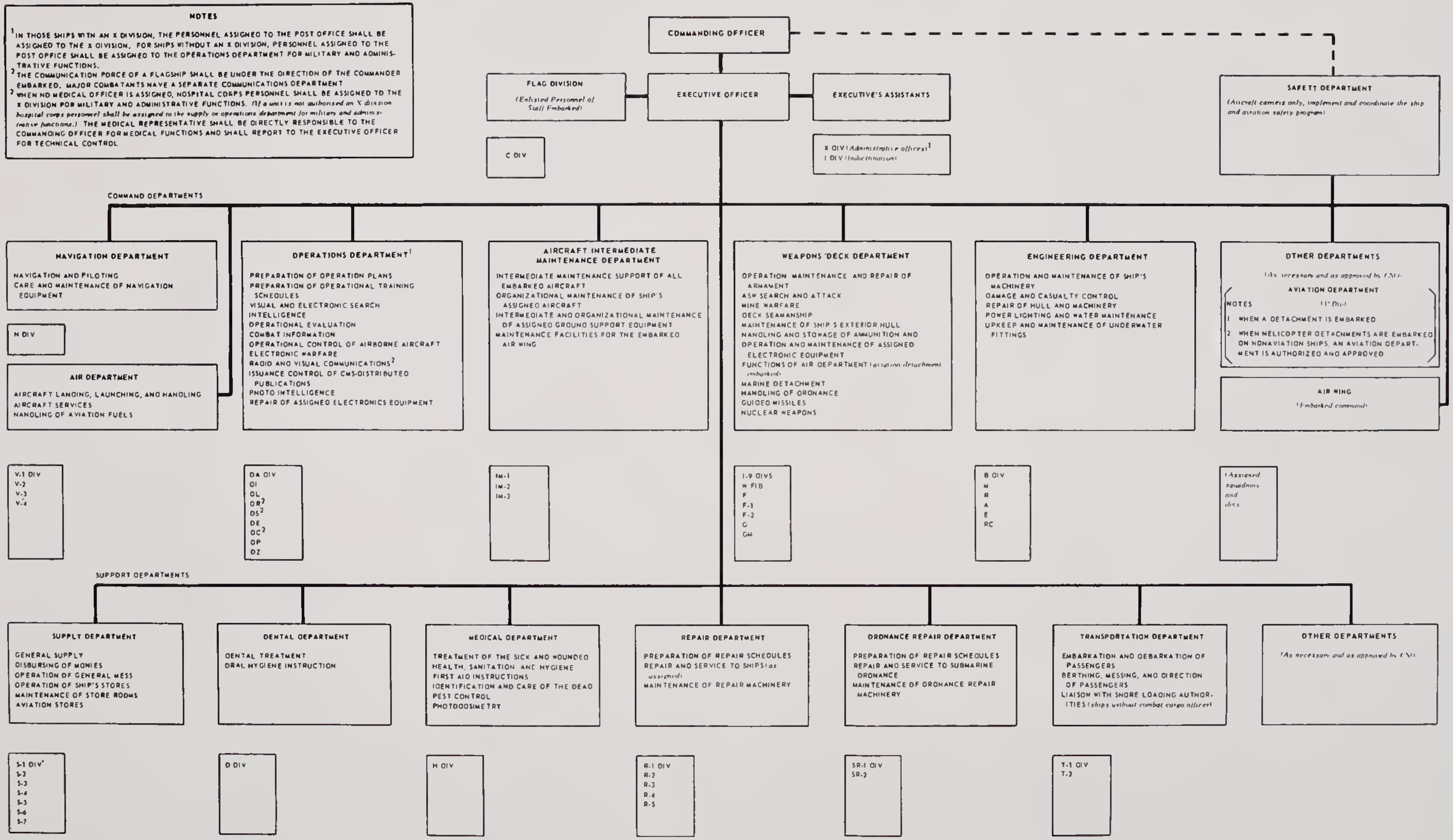
NOTES
[1] IN THOSE SHIPS WITH AN X DIVISION, THE PERSONNEL ASSIGNED TO THE POST OFFICE SHALL BE ASSIGNED TO THE X DIVISION. FOR SHIPS WITHOUT AN X DIVISION, PERSONNEL ASSIGNED TO THE POST OFFICE SHALL BE ASSIGNED TO THE OPERATIONS DEPARTMENT FOR MILITARY AND ADMINISTRATIVE FUNCTIONS.
[2] THE COMMUNICATION FORCE OF A FLAGSHIP SHALL BE UNDER THE DIRECTION OF THE COMMANDER EMBARKED. MAJOR COMBATANTS HAVE A SEPARATE COMMUNICATIONS DEPARTMENT
[3] WHEN NO MEDICAL OFFICER IS ASSIGNED, HOSPITAL CORPS PERSONNEL SHALL BE ASSIGNED TO THE X DIVISION FOR MILITARY AND ADMINISTRATIVE FUNCTIONS. (If a unit is not authorized an X division hospital corps personnel shall be assigned to the supply or operations department for military and administrative functions.) THE MEDICAL REPRESENTATIVE SHALL BE DIRECTLY RESPONSIBLE TO THE COMMANDING OFFICER FOR MEDICAL FUNCTIONS AND SHALL REPORT TO THE EXECUTIVE OFFICER FOR TECHNICAL CONTROL
COMMANDING OFFICER
FLAG DIVISION
(Enlisted Personnel of Staff Embarked)
C DIV
EXECUTIVE OFFICER
EXECUTIVE'S ASSISTANTS
X DIV (Administrative offices)[1]
I DIV (Indoctrination)
SAFETY DEPARTMENT
(Aircraft carriers only, implement and coordinate the ship and aviation safety program)
COMMAND DEPARTMENTS
NAVIGATION DEPARTMENT
NAVIGATION AND PILOTING
CARE AND MAINTENANCE OF NAVIGATION EQUIPMENT
N DIV
AIR DEPARTMENT
AIRCRAFT LANDING, LAUNCHING, AND HANDLING
AIRCRAFT SERVICES
HANDLING OF AVIATION FUELS
V-1 DIV
V-2
V-3
V-4
OPERATIONS DEPARTMENT[1]
PREPARATION OF OPERATION PLANS
PREPARATION OF OPERATIONAL TRAINING SCHEDULES
VISUAL AND ELECTRONIC SEARCH
INTELLIGENCE
OPERATIONAL EVALUATION
COMBAT INFORMATION
OPERATIONAL CONTROL OF AIRBORNE AIRCRAFT
ELECTRONIC WARFARE
RADIO AND VISUAL COMMUNICATIONS[2]
ISSUANCE CONTROL OF CMS-DISTRIBUTED PUBLICATIONS
PHOTO INTELLIGENCE
REPAIR OF ASSIGNED ELECTRONICS EQUIPMENT
OA DIV
OI
OL
OR[2]
OS[2]
OE
OC[2]
OP
OZ
AIRCRAFT INTERMEDIATE MAINTENANCE DEPARTMENT
INTERMEDIATE MAINTENANCE SUPPORT OF ALL EMBARKED AIRCRAFT
ORGANIZATIONAL MAINTENANCE OF SHIP'S ASSIGNED AIRCRAFT
INTERMEDIATE AND ORGANIZATIONAL MAINTENANCE OF ASSIGNED GROUND SUPPORT EQUIPMENT
MAINTENANCE FACILITIES FOR THE EMBARKED AIR WING
IM-1
IM-2
IM-3
WEAPONS/DECK DEPARTMENT
OPERATION, MAINTENANCE, AND REPAIR OF ARMAMENT
ASW SEARCH AND ATTACK
MINE WARFARE
DECK SEAMANSHIP
MAINTENANCE OF SHIP'S EXTERIOR HULL
HANDLING AND STOWAGE OF AMMUNITION AND
OPERATION AND MAINTENANCE OF ASSIGNED ELECTRONIC EQUIPMENT
FUNCTIONS OF AIR DEPARTMENT (aviation detachment embarked)
MARINE DETACHMENT
HANDLING OF ORDNANCE
GUIDED MISSILES
NUCLEAR WEAPONS
1-9 DIVS
W FIB
F
F-1
F-2
G
GM
ENGINEERING DEPARTMENT
OPERATION AND MAINTENANCE OF SHIP'S MACHINERY
DAMAGE AND CASUALTY CONTROL
REPAIR OF HULL AND MACHINERY
POWER LIGHTING AND WATER MAINTENANCE
UPKEEP AND MAINTENANCE OF UNDERWATER FITTINGS
B DIV
M
R
A
E
RC
OTHER DEPARTMENTS
(As necessary and as approved by CNO)
AVIATION DEPARTMENT
(V Div)
NOTES
1 WHEN A DETACHMENT IS EMBARKED
2 WHEN HELICOPTER DETACHMENTS ARE EMBARKED ON NONAVIATION SHIPS, AN AVIATION DEPARTMENT IS AUTHORIZED AND APPROVED
AIR WING
(Embarked command)
(Assigned squadrons and units)
SUPPORT DEPARTMENTS
SUPPLY DEPARTMENT
GENERAL SUPPLY
DISBURSING OF MONIES
OPERATION OF GENERAL MESS
OPERATION OF SHIP'S STORES
MAINTENANCE OF STORE ROOMS
AVIATION STORES
S-1 DIV
S-2
S-3
S-4
S-5
S-6
S-7
DENTAL DEPARTMENT
DENTAL TREATMENT
ORAL HYGIENE INSTRUCTION
D DIV
MEDICAL DEPARTMENT
TREATMENT OF THE SICK AND WOUNDED
HEALTH, SANITATION AND HYGIENE
FIRST AID INSTRUCTIONS
IDENTIFICATION AND CARE OF THE DEAD
PEST CONTROL
PHOTODOSIMETRY
H DIV
REPAIR DEPARTMENT
PREPARATION OF REPAIR SCHEDULES
REPAIR AND SERVICE TO SHIPS (as assigned)
MAINTENANCE OF REPAIR MACHINERY
R-1 DIV
R-2
R-3
R-4
R-5
ORDNANCE REPAIR DEPARTMENT
PREPARATION OF REPAIR SCHEDULES
REPAIR AND SERVICE TO SUBMARINE ORDNANCE
MAINTENANCE OF ORDNANCE REPAIR MACHINERY
SR-1 DIV
SR-2
TRANSPORTATION DEPARTMENT
EMBARKATION AND DEBARKATION OF PASSENGERS
BERTHING, MESSING, AND DIRECTION OF PASSENGERS
LIAISON WITH SHORE LOADING AUTHORITIES (ships without combat cargo officer)
T-1 DIV
T-2
OTHER DEPARTMENTS
(As necessary and as approved by CNO)

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Figure 13-1.—Shipboard organization.

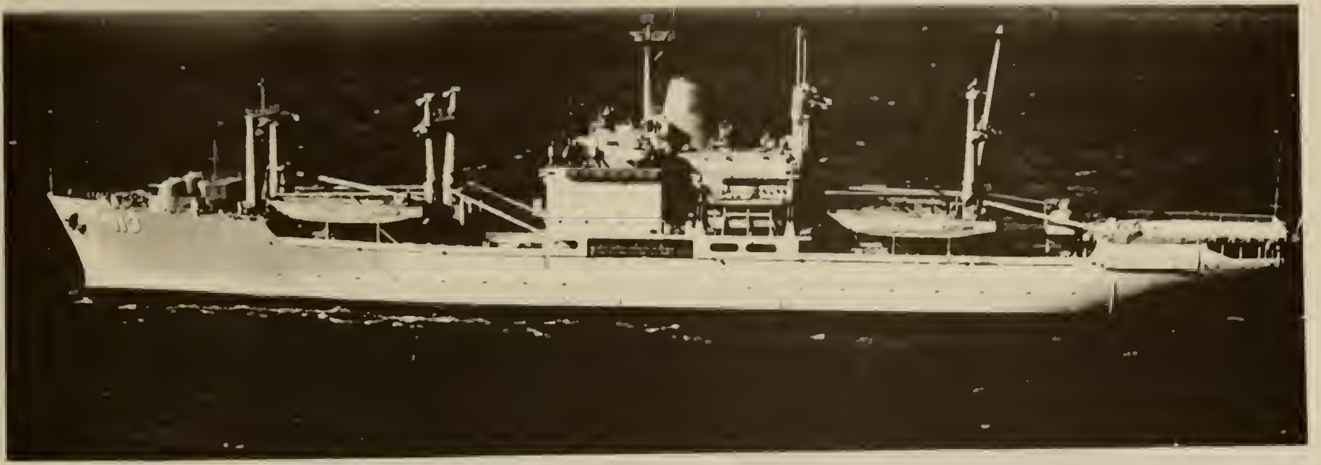
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Figure 19-14.—Amphibious cargo ship USS Charleston (LKA-113).

and 36 classes can transport 18 LCM-6 boats plus the ship's allowance of 4 landing craft. They have one helicopter operating spot, which is capable of handling a CH-53 helicopter. The Whidbey Island-class LSD (fig. 19-15) can accommodate four air cushion landing craft (LCAC) or conventional landing craft and has two helicopter operating spots.

TANK LANDING SHIPS.—Tank landing ships (LSTs) were a World War II development used successfully for transporting troops, tanks,

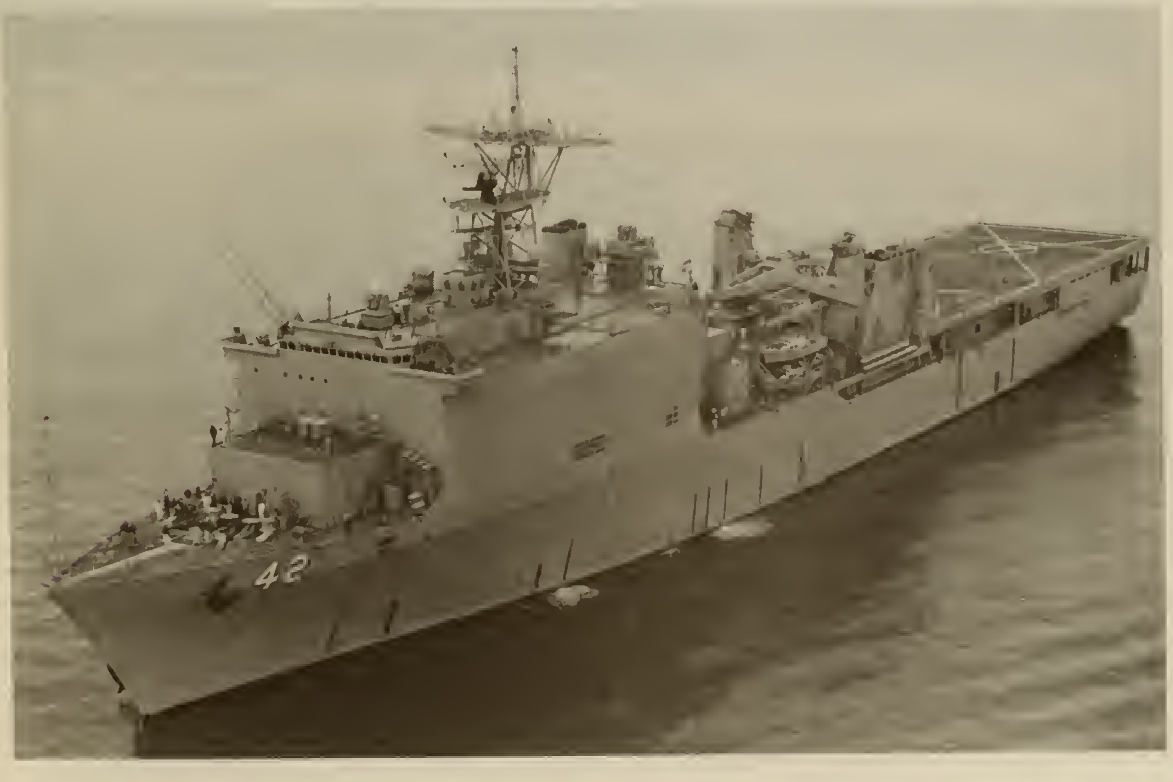
134.114

Figure 19-15.—Dock landing ship USS Germantown (LSD-42).

preloaded vehicles, ammunition, fuel, and all sorts of supplies. LSTs built after the war were of the same general design but were larger and faster. They had certain added features that enabled them to carry out their missions more effectively than those built before the war.

Bow doors and a bow ramp on LSTs of the World War II era gave access to a huge hold called the tank deck. Another ramp from the main deck to the tank deck enabled vehicles to reach the main deck under their own power. One of the added features in the postwar design is a turntable in the forward part of the tank deck. The turntable allows vehicles to turn without a great deal of maneuvering. Another feature is booms and winches mounted on the main deck forward of the deckhouse to aid cargo handling.

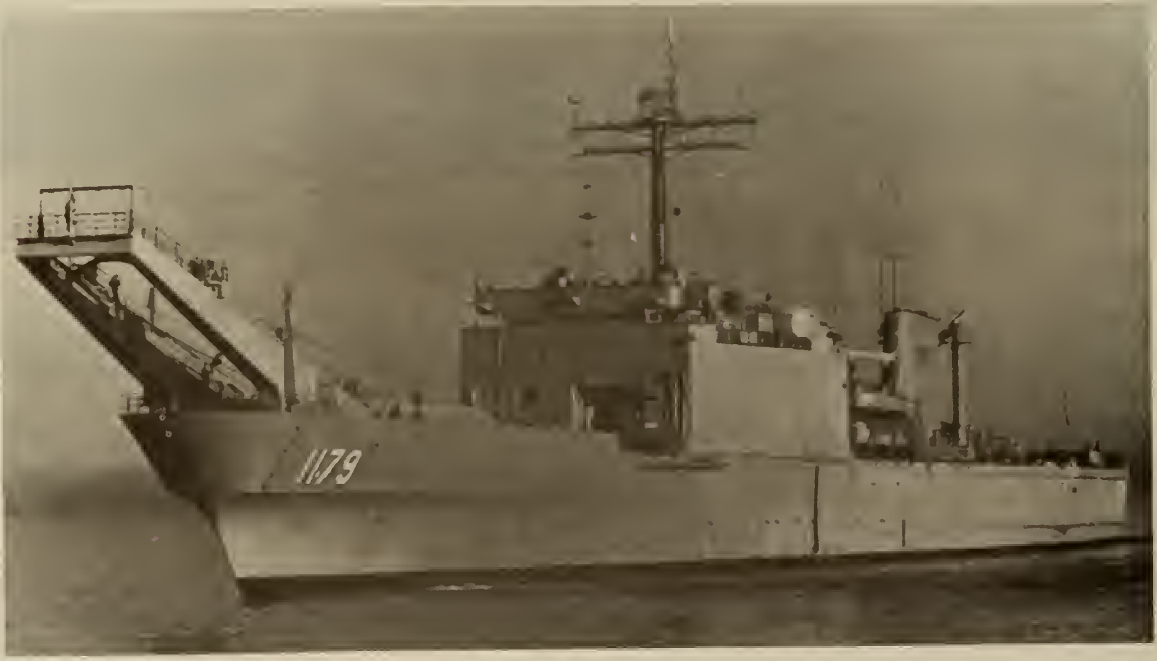

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Figure 19-16.—Tank landing ship USS Newport (LST-1179).

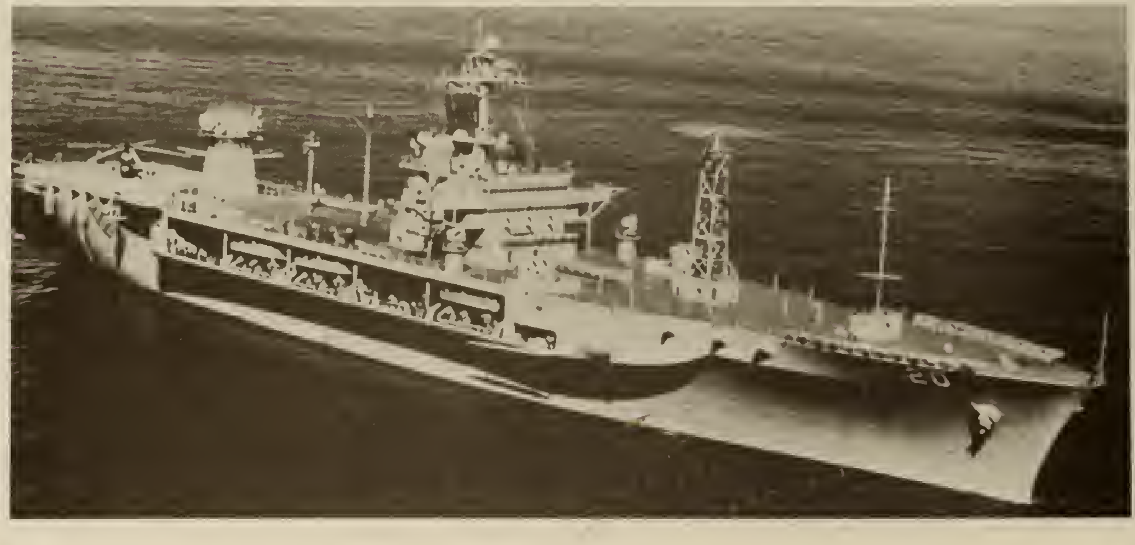

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Figure 19-17.—USS Mount Whitney (LCC-20).

The first LST of a revolutionary new design, USS *Newport* (LST-1179) (fig. 19-16), was commissioned in June of 1969. This was the first U.S. Navy combat vessel equipped with a bow thruster (side propulsion unit) to aid in maneuvering.

The *Newport* is the fastest and largest LST ever built. The new design features a clipper bow, an extended bow ramp instead of bow doors, and a rounded bottom. The tank deck is connected to the main deck by a ramp forward of the bridge. Stern doors allow easy loading and unloading of cargo and troops. Vehicle stowage is 500 tons. The stowage area is 19,000 square feet, 5,000 more than previous LSTs.

These ships can transport and land amphibious vehicles, tanks, combat vehicles, and equipment in amphibious assaults. In addition, they can transport and launch a pontoon causeway section in the amphibious objective area.

AMPHIBIOUS COMMAND SHIPS.—An amphibious command ship (LCC) can serve simultaneously as a command ship for an amphibious task force, a landing force, and air support commanders during amphibious operations. It provides accommodations and command and communications facilities for the various commanders and their staffs. This ship has the most modern and capable command facilities afloat. At this time, only two ships of this type, USS *Blue Ridge* and USS *Mount Whitney* (fig. 19-17), are in commission.

Blue Ridge Class Data

Displacement	17,100 tons
Length	620 feet
Beam	108 feet
Draft	29 feet
Shaft horsepower	22,000
Accommodations	775
Troops	150

MINE SWEEPERS.—The Navy's newest minesweeping ship class, the Avenger, represents a revolutionary concept in mine warfare. These ships are designed as mine hunter/killers capable of performing reconnaissance, classification, and neutralization of moored and bottom mines.

These ships operate the remotely piloted, tethered Mine Neutralization System (MNS). This system combines sonar and video capability with cable cutters and a mine-detonating device (a releasable, remotely controlled explosive).

Using the MNS, an operator aboard the mine countermeasures (MCM) ship (fig. 19-18) can

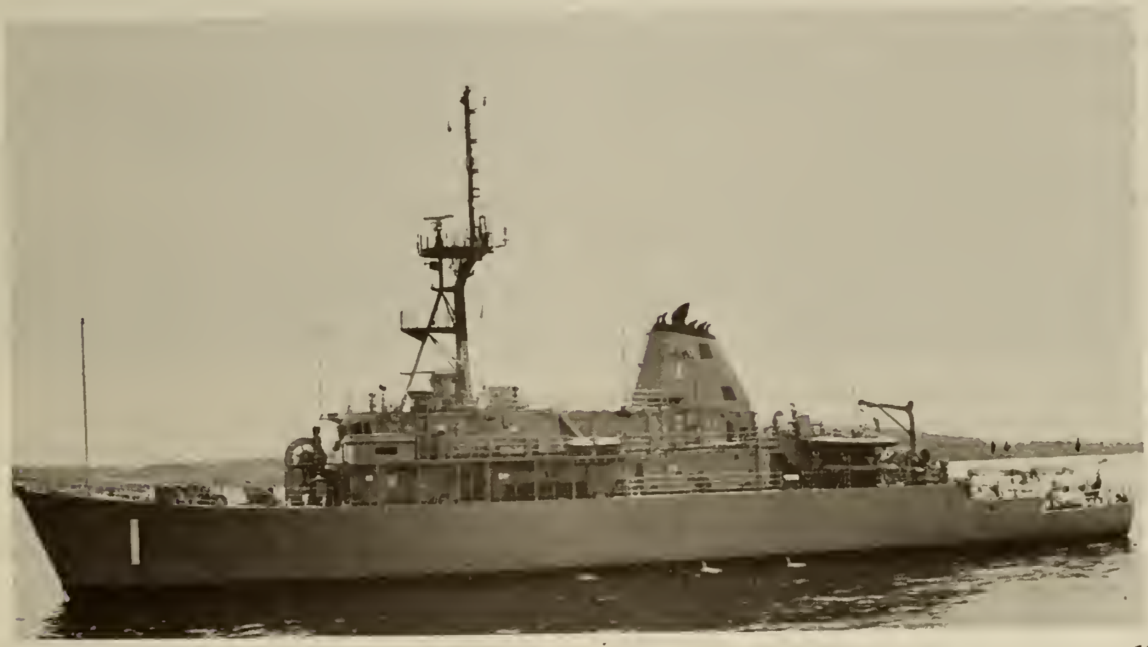

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Figure 19-18.—USS Avenger (MCM-1), the lead ship of its class.

maneuver within visual range of a suspected mine. The operator can then use the closed-circuit television aboard the MNS to visually identify the object. If the object is identified as a bottom mine, a detonating charge can be placed nearby for subsequent destruction. If the object proves to be a moored mine, the cable can be cut, allowing the mine to float to the surface for subsequent destruction.

The United States has current plans to produce 14 ships of the Avenger class. The Naval Reserve Force operates most of the older minesweeping ships.

AUXILIARY AND SUPPORT SHIPS

The effectiveness of a fleet depends to a great extent on its quantity and type of auxiliary ships. These ships back up the fighting forces with supporting services that keep the fleet operating. The supporting services furnish, when needed, vital supplies such as fuel, ammunition, repair parts, and food. The part auxiliary ships play in time of war is not as highly publicized as that of combatant ships. However, auxiliary ships fight just as hard as combatant ships in providing their services to the fleet.

The type of service an auxiliary provides determines its classification. The initial letter in each designation is an *A*. An AD is a destroyer tender, while an AS is a submarine tender. An AO is an oiler, and an AOR is a replenishment oiler. An AE is an ammunition (explosives) supply ship, while an AOE is a multiple-product fast combat support ship. An AFS is a combat stores ship; an AR, a repair ship; and an AG, a miscellaneous category that includes a variety of ships.

Replenishment-at-Sea Ships

In peacetime Navy ships must often remain at sea for long periods; in wartime the fleet usually operates far from bases of support. Therefore, ships require some means of resupply to remain fully capable of carrying out the Navy's mission and other assigned tasks. This broad operational requirement is met by underway replenishment (UNREP). UNREP has maintained fleets overseas, such as the Sixth Fleet in the Mediterranean Sea, during peacetime for many years.

Underway replenishment refers to all methods of transferring fuel, munitions, supplies, and personnel from one vessel to another while ships are under way. Ships use two general methods of replenishment: connected and vertical. They may use both methods simultaneously.

The connected replenishment (CONREP) method uses lines rigged between ships to transfer personnel and lines or hoses rigged between ships to transfer commodities. The vertical replenishment (VERTREP) method employs helicopters to transfer personnel and cargo (except fuel). Transferring fuel is called fueling (or refueling) at sea (FAS). Transferring cargo is called replenishment at sea (RAS).

Replenishing consists of a certain amount of dead time on the part of the combat ship. During this time the ship is preparing to go alongside the replenishing ship, connecting lines, replenishing, breaking away upon completion, and returning to station. The fewer replenishing "stops" a ship has to make, the less time it remains off station. The process of replenishing a ship under way proceeds more quickly if the replenishing vessel is a multiple-product delivery ship, which carries several types of commodities.

Lets look now at some of the replenishment ships used by the Navy.

AMMUNITION SHIPS.—Ammunition ships (AEs) operate with replenishment groups to deliver ammunition and missiles to the fleet at sea. Ships of the Kilauea class (fig. 19-19) are 564 feet long and 81 feet wide, draw 26 feet of water, and displace 18,000 tons. At first glance, these figures sound unimpressive; but when compared to World War II AEs, they are a substantial improvement in cargo capacity, cargo handling, and speed. Their design incorporates a mechanical handling system for more rapid loading and off-loading of ammunition. A tension highline system is built into the design, along with new, improved electrohydraulic cargo winches for replenishment at sea.

OILERS.—Oilers (AOs), carrying Navy fuel oil and other petroleum products, operate with replenishment groups and deliver their cargo to ships at sea. Oilers can service ships on both sides simultaneously.

The number of Navy-manned fleet oilers has diminished as more and more civilian-manned Military Sealift Command ships have assumed responsibilities for supplying the fleet. The Navy is converting all five of the Cimarron-class oilers (fig. 19-20) into "jumbo" oilers. The AO jumbo program is designed to increase the 120,000-barrel fuel capacity of these ships to 150,000 barrels. It

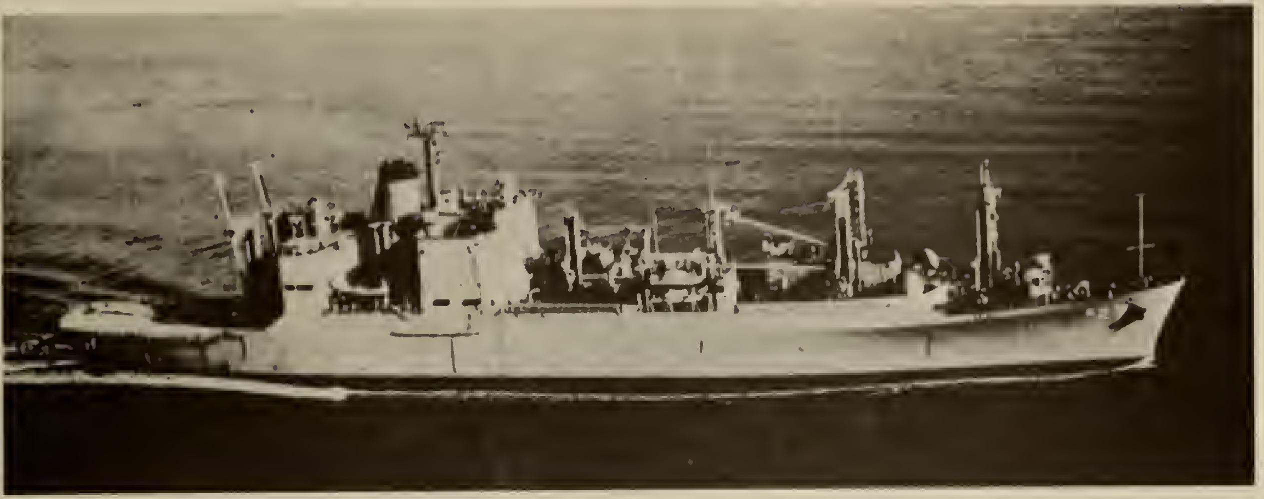

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Figure 19-19.—USS Butte (AE-27).

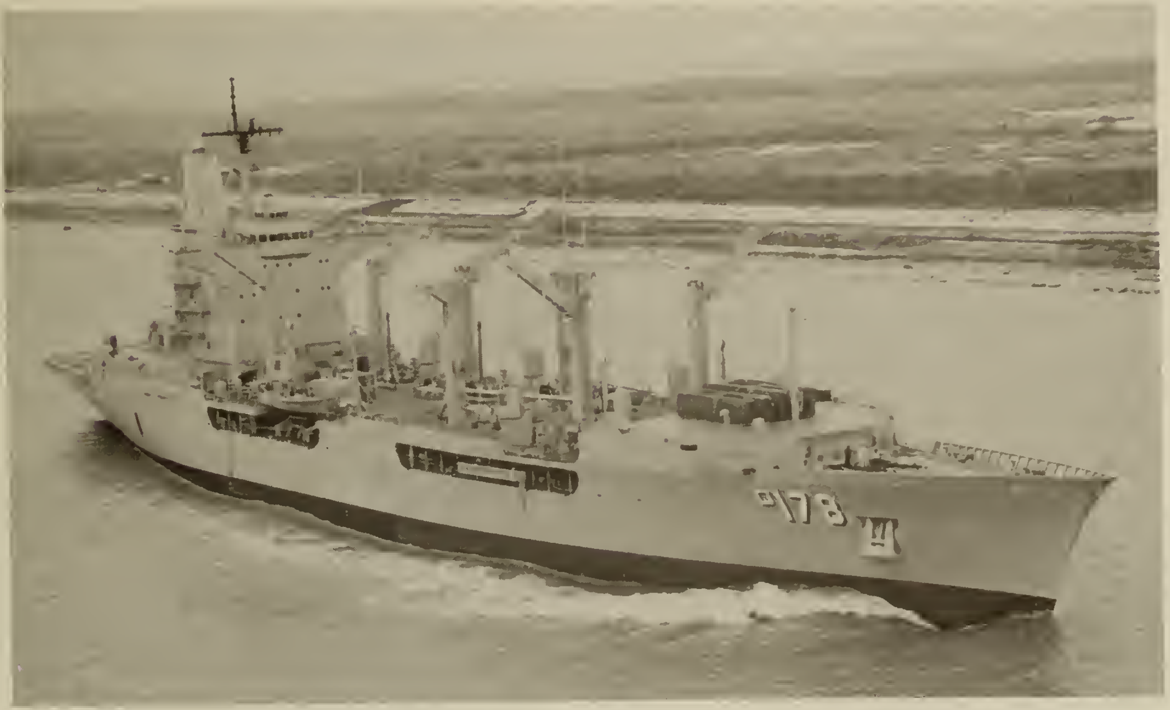

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Figure 19-20.—USS Monongahela (AO-178) under way on the Mississippi River.

will also give them the capability of carrying 600 tons of cargo ammunition.

The Wichita-class replenishment oilers (AORs) are capable of multiproduct delivery. They can carry 160,000 barrels of fuel, 600 tons of munitions, 200 tons of dry stores, and 100 tons of refrigerated stores.

COMBAT STORES SHIPS.—Combat stores ships (AFSs) provide within a single hull the triple logistic capability of a stores issues ship, a refrigerator ship, and an aviation supply ship.

The AFS (fig. 19-21) is designed for high-speed replenishment operations. Built-in materials-handling equipment, consisting of elevators, vertical tray lift conveyors, and pallet conveyors, provide for the rapid breakout of cargo. Forklift trucks and pallet trucks are used for horizontal movement of cargo to the replenishment stations.

In addition to the conventional replenishment rigging, constant-tension highline transfer systems are available to all transfer stations. Large free-deck areas provide space for pre-positioning loads destined for receiving ships. A helicopter platform and hangar for launching and servicing two helicopters add the capability of vertical replenishment.

FAST COMBAT SUPPORT SHIPS.—Fast combat support ships (AOEs) are the largest and most powerful auxiliary ships in the Navy. Unlike other replenishment ships, the AOE is designed to operate as an integral force, rather than as a unit of an underway replenishment group.

The AOE (fig. 19-22) is a multiple-product ship that can transfer missiles, conventional ammunition, fuel, and general and refrigerated cargo to other ships at sea. The AOE combines in one large ship the functions of three major service force ships—oiler, ammunition ship, and combat store ship. The deck layout and cargo-handling equipment of the AOE allow it to service the smallest patrol craft or the largest carrier.

The design of the AOE includes a helicopter flight deck capable of supporting three Sea Knight helicopters. The use of helicopters in replenishing has several advantages. It enables the transfer of provisions faster than a receiving ship can stow them away. It also enables the transfer of highly perishable commodities without the risk of defrosting or spoilage. In addition it makes possible the replenishment of a ship that may be 40 or 50 miles away.

The AOE is larger than other UNREP ships. It has 15 replenishment stations, each capable of transferring a load of cargo to a ship alongside

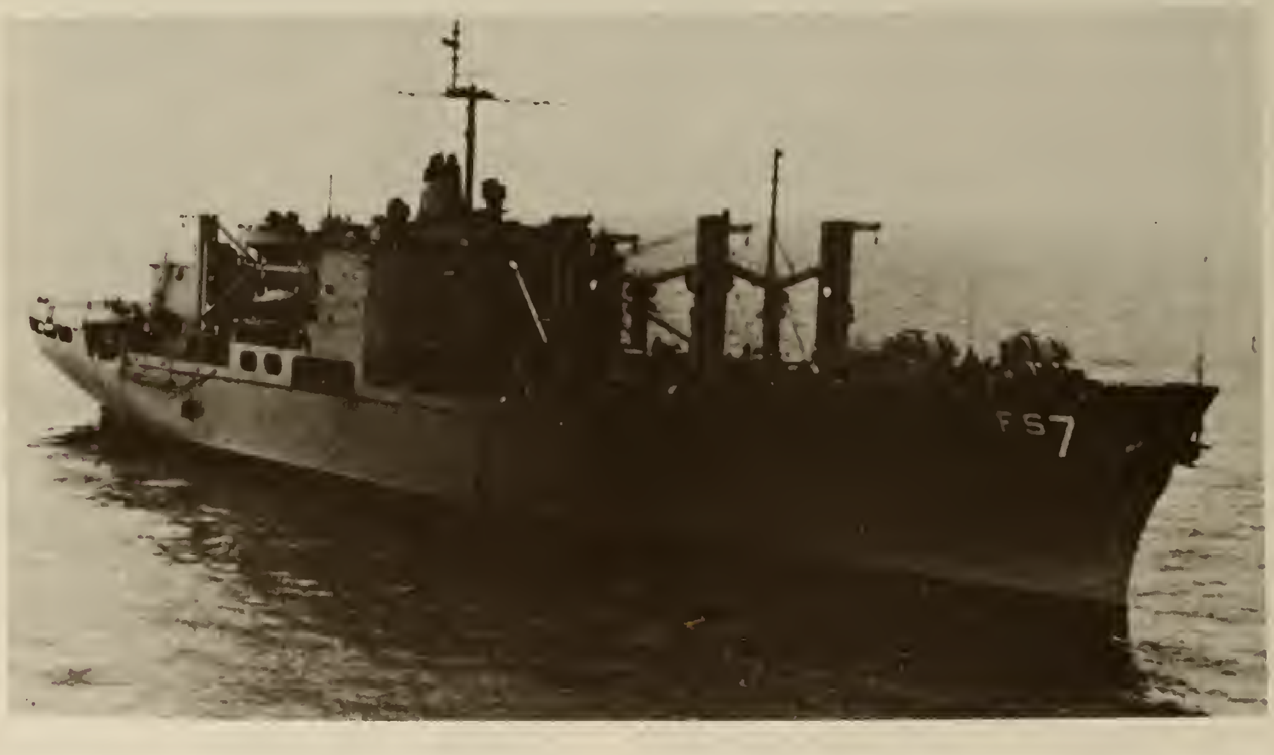

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Figure 19-21.—USS San Jose (AFS-7).

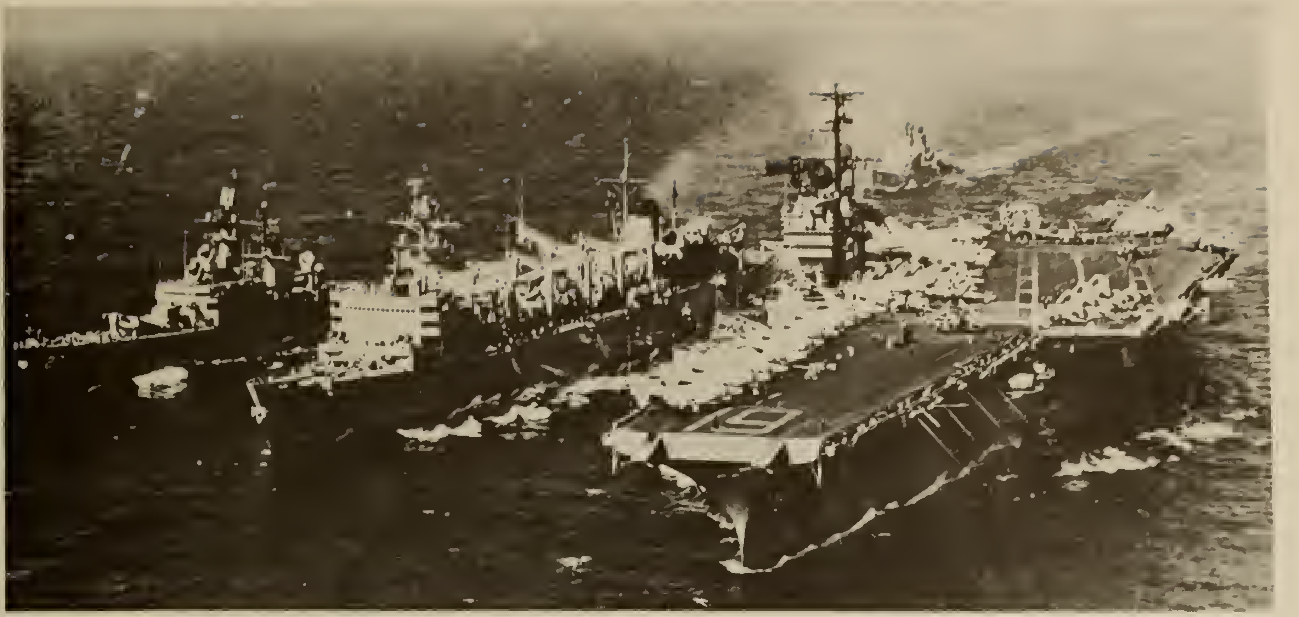

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Figure 19-22.—A multiple-product AOE conducting underway replenishment.

in 90 seconds. On a normal UNREP operation (carrier to port, destroyer to starboard), the deck force can transfer 300 tons of cargo per hour. The AOE carries over 5 million gallons of petroleum products, 1,600 tons of ammunition, and 500 tons of dry and refrigerated stores in addition to miscellaneous general cargo and mail.

Material Support Ships

Material support ships include repair ships (ARs), destroyer tenders (ADs), and submarine tenders (ASs). These ships provide repair and maintenance functions that are beyond the capabilities of other ships' facilities or personnel. They are floating shops with skilled workers representing a wide variety of mechanical and electrical trades. These ships supply parts and the personnel to install them and skilled workers who can repair many delicate optical and navigational instruments. They also provide personnel who can do underwater cutting and welding, engine and hull repairs, machine work, and electronic and electrical repairs. These ships have foundries, forges, and many types of machine tools. They have instrument shops, carpentry shops, boat shops, and boat-engine shops. They also have medical and dental facilities.

In wartime the function of material support ships is to operate in advance areas and restore the fleet to fighting trim after suffering battle or other damage. In peacetime their function may be less apparent, since a shipyard or some other permanent base could do the work of these ships as efficiently. However, the Navy must maintain a nucleus of ships and personnel ready for any emergency.

SUMMARY

The U.S. Navy has hundreds of vessels ranging from small tugboats to huge aircraft carriers. You cannot be expected to know all of the characteristics of each one, but you should be able to recognize the type of ship you see and have an understanding of its mission.

In this chapter you have been introduced to many of the ship types operated by the Navy. You have also been given some of the characteristics of these ships, including size, armament, manning, and various other features. This information should enable you to differentiate between the different ship types and characteristics.

REFERENCES

Naval Science for the Merchant Marine Officer, NAVEDTRA 38051, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1986.

Navy Fact File, 9th ed., Office of Information, Washington, D.C., 1989.

SUGGESTED READING

Moore, John, *Jane's Fighting Ships, 1990-91*, Jane's Publishing, Inc., New York, 1990.

Polman, Norman, *The Ships and Aircraft of the U.S. Fleet*, 14th ed., Naval Institute Press, Annapolis, Md., 1987.

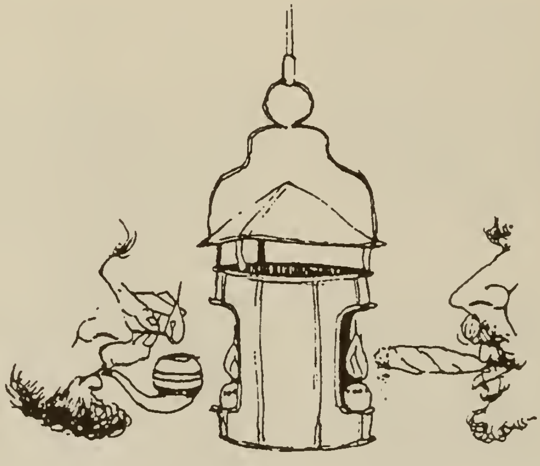
SMOKING LAMP

SEA DOGS WHO SAILED THE WOODEN SHIPS ENDURED HARDSHIPS THAT SAILORS TODAY NEVER SUFFER. CRAMPED QUARTERS, POOR UNPALATABLE FOOD, BAD LIGHTING, AND BOREDOM WERE HARD FACTS OF SEA LIFE. BUT PERHAPS A MORE FRUSTRATING PROBLEM WAS GETTING FIRE TO KINDLE A CIGAR OR PIPE TOBACCO AFTER A HARD DAY'S WORK.

MATCHES WERE SCARCE AND UNRELIABLE, YET SMOKING CONTRIBUTED POSITIVELY TO THE MORALE OF THE CREW; SO OIL LAMPS WERE HUNG IN THE FO'C'SLE AND USED AS MATCHES. SMOKING WAS RESTRICTED TO CERTAIN TIMES OF THE DAY BY THE BOS'UN'S. WHEN IT WAS ALLOWED, THE "SMOKING LAMPS" WERE "LIGHTED" AND THE MEN RELAXED WITH THEIR TOBACCO.

FIRE WAS, AND STILL IS, THE GREAT ENEMY OF SHIPS AT SEA. THE SMOKING LAMP WAS CENTRALLY LOCATED FOR THE CONVENIENCE OF ALL AND WAS THE ONLY AUTHORIZED LIGHT ABOARD. IT WAS A PRACTICAL WAY OF KEEPING OPEN FLAMES AWAY FROM THE MAGAZINES AND OTHER STORAGE AREAS.

IN TODAY'S NAVY THE SMOKING LAMPS HAVE DISAPPRED, BUT THE WORDS "SMOKING LAMP IS LIGHTED IN ALL AUTHORIZED SPACES" REMAINS -- A CARRY-OVER FROM OUR PAST.



CHAPTER 20

NAVAL WEAPONS SYSTEMS

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the gunnery systems used on Navy ships.
2. Describe the purpose of gun fire control equipment.
3. Identify the antiair warfare (AAW) missiles used by the Navy.
4. Identify the cruise missiles used by the Navy.
5. Identify the antisubmarine warfare (ASW) weapons used by the Navy.
6. Identify the air-to-air missiles used by the Navy.
7. Identify the air-to-ground missiles used by the Navy.
8. Identify various airborne weapons used by the Navy.
9. Identify the Navy's nuclear weapons capability.

Before the discovery of gunpowder, naval battles were fought with row-galley tactics. In general, two methods were employed. A galley could maneuver near the enemy vessel and attempt to ram it, overturn it, board it by grappling hooks, or shave off its oars by a close run. An alternative procedure was to catapult flaming sulphur, pitch, niter, or oil onto the enemy ship; row away; and watch the fire. Although crossbows and shipborne spring- or torsion-powered artillery did allow some battle action before actual ship-to-ship contact, the ram was the main weapon. Speed and maneuverability were the best defenses.

Today, however, weapons systems are extremely complex. They include both the weapon and the fire control equipment used with the weapon.

Fire control entails problem solving: the problem of destroying a target with the armament of your ship or aircraft. Solutions must be found for the three types of targets: surface, subsurface, and air targets. The effective use of any weapons system requires the delivery of a destructive device to a target. The destructive device (weapon) could be a guided missile, gun projectile, rocket, torpedo, or depth charge.

To deliver the weapon accurately, we must know the location, direction of travel, and the velocity of the target. Since many air targets now travel faster than sound, they must be engaged at great distances. A weapon is most effective when used as part of a ship's or aircraft's weapons system against such targets.

A weapons system includes the following:

1. Units that detect, locate, and identify the target
2. Units that direct or aim a delivery unit (for example, gun or guided-missile fire control radar)
3. Units that deliver or initiate the delivery of the weapon to the target (for example, missile battery, gun battery)
4. Units termed *weapons* that destroy the target when in contact with it or near it

While this serves as a brief overview of a weapons system, let's look a little deeper at some of the systems and equipment the Navy uses.

GUNS

The gun is the Navy's oldest and most frequently used piece of ordnance equipment. Modern improvements in the construction of guns and ammunition have revolutionized gunnery by increasing the destructive power and maximum range of this weapon. During the revolutionary war, American ships fought at ranges of only several hundred yards. Using inaccurate cast-iron guns without sights, they threw solid shots that usually failed to penetrate. Modern guns hurl explosive shells that may weigh up to 2,700 pounds. The range of the largest (16-inch) gun now in service exceeds 24 miles. This gun can destroy a ship or some other target with only one of its projectiles.

Naval guns, exclusive of small arms, are classified according to size, type of ammunition used, and method of fire.

Large guns are usually mounted in turrets, boxlike structures of armor enclosing the breech end of two or three guns. The turret rotates within and on top of a barbette, a fixed circular tube of armor extending down to the armored decks. The barbette encloses the ammunition-handling rooms, hoists, and gun-laying machinery of the turret.

Smaller guns are housed in two types of gun mounts: open and closed. The latter type resembles a turret but does not have an armored barbette.

The mounts or turrets of all naval guns except the smallest are trained (rotated in the deck plane), and the guns are elevated by electric or electric-hydraulic power drives. The power drives, which are usually automatic, move the gun to a position designated by a fire control system.

The following sections briefly describe some of the gunnery systems used by the Navy.

16″/50

The 16″/50 turret-mounted gun is the only major-caliber weapon in the fleet today. Installed only on battleships, it can fire a 2,700-pound projectile a distance of 24 miles.

Although it has a low firing rate (2 rounds per minute), the 16″ projectile is quite destructive.

5″/54

The 5″/54 Mk 42 is an automatic dual-purpose (DP) gun carried by most frigates (FFs), destroyers (DDs), and guided-missile cruisers (CGs) built in the 1950s and 1960s. Depending on the class of ship, the weapons may be located on one, two, or three single mounts. The gun has an effective range of 24,500 yards and fires 70-pound shells at a rate of 32 rounds per minute.

The Mk 45 (fig. 20-1) provides destroyers and large ships with an all-weather capability for support of amphibious operations. It also provides them with an all-weather capability for delivery of rapid and accurate naval gunfire against surface craft, aircraft, and shore targets. It is a shielded, single-barrel, fully automatic gun that fires 5″/54 semifixed ammunition. Total installation weight varies from 49,000 to 54,000 pounds, depending on the installation configuration. The DD-963, DDG-993, LHA-1, CGN-36,

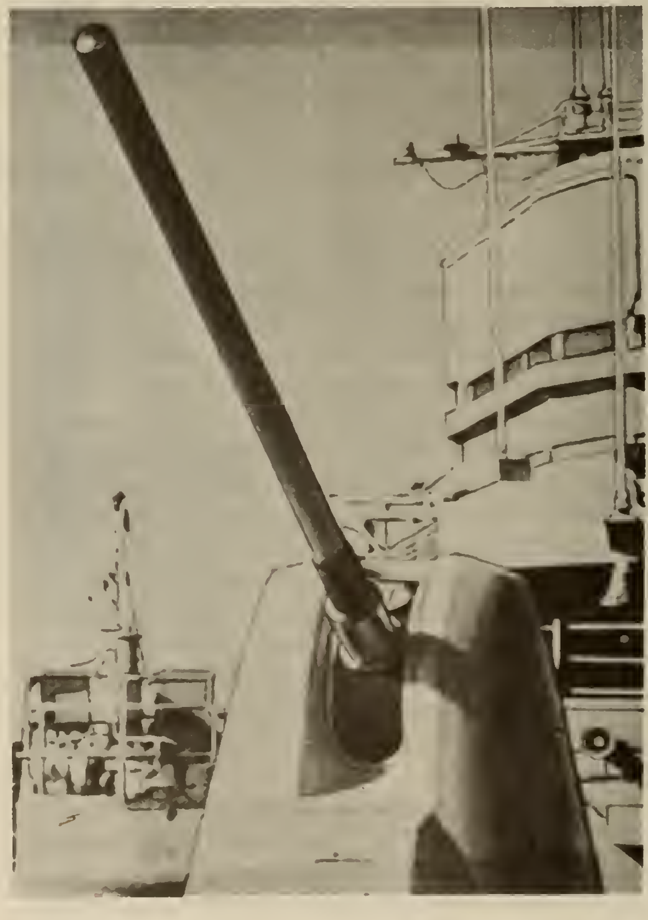


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Figure 20-1.—Mk 45 5″/54.

CGN-38, and CG-47 classes of ships carry the Mk 45.

5″/38

The 5″/38 semiautomatic DP gun was the mainstay of the U.S. Navy from 1939 until the late 1960s. Single or twin mounts made up the secondary batteries on early cruisers and battleships. One or two single mounts are now the main battery of the older DDs, FFs, and guided-missile frigates (FFGs). The twin mounts are the secondary gun battery on battleships (BBs). For short periods, an efficient gun crew can get off 15 rounds per minute for single mounts and 30 rounds per minute for single twin mounts. The projectile weighs 55 pounds and has an effective range of 18,000 yards.

3″/50

The dual-purpose, semiautomatic 3″/50 gun was planned during World War II. The enemy's use of combat suicide planes and dive bombers prompted the need for rapid-fire weapons having a larger explosive projectile than 40-mm guns. Although the 3″/50 gun was not produced in time for wartime service, it proved to be a very effective gun. Becoming standard throughout much of the fleet, it replaced the 40-mm twin and quadruple mounts on all combat ships. Most of the mounts installed were open twin mounts; however, a few single mounts were installed.

The 3″/50 fires 45 rounds per minute per barrel and has a range of 14,200 yards. A few of these mounts remain on major combatant ships, but most are found on auxiliary and amphibious landing ships.

76-MM/62

The Mk 75 76-mm/62-caliber, rapid-fire, dual-purpose gun mount was developed in the late 1960s to combat increased aircraft target speeds and the cruise missile threat. Because of its light weight, it is suitable for installation on the new guided-missile frigates and missile hydrofoil boats. It is a water-cooled single mount with a rate of fire of 85 rounds per minute and a maximum range of 17,800 yards. The gunhouse, which is not manned, requires only three handlers to reload the magazine.

CLOSE-IN WEAPON SYSTEM (CIWS)

The close-in weapon system (CIWS) was developed to provide the fleet with a close-range, hard defense against antiship cruise missiles, fixed-wing aircraft, and surface targets. The system is an automatic, fast-reaction, computer-controlled radar with a rapid-fire 20-millimeter gun. It combines a single-mount fire control radar and a six-barrel Gatling gun that fires depleted-uranium projectiles at a rate of 3,000 rounds per minute. Its projectiles are 2.5 times heavier than those made of steel. The system has a high-kill probability. This system is suitable for installation on most ships as a single unit. It permits smaller ships to have a degree of self-protection never before possible. (See fig. 20-2.)

GUN FIRE CONTROL EQUIPMENT

Gun fire control equipment must solve a difficult problem. It must direct the guns to hit

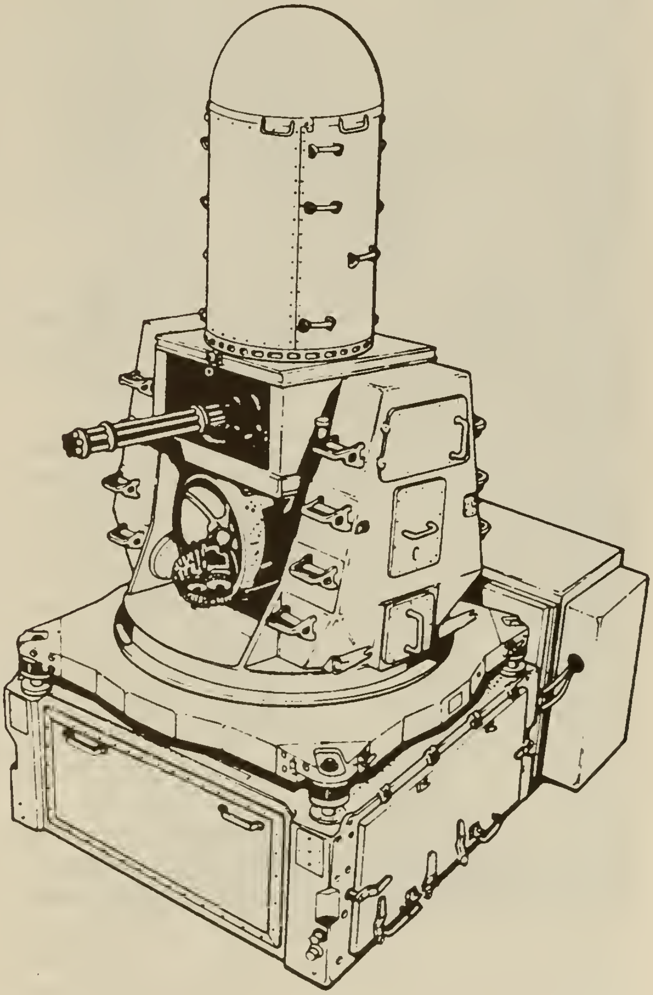

Figure 20-2.—Close-in weapon system (CIWS).

a moving target with a projectile that takes a considerable length of time to arrive at its destination. Accordingly, the gun cannot be aimed at the point where the target is when detected. It must be aimed at the point where the target will be when the projectile gets there; that is, the predicted position of the target. Furthermore, the path of the projectile is not a straight line but is curved by gravity. Wind, variations in atmospheric density, and other forces also affect the path of the projectile. In addition, the guns and the fire control equipment are mounted on a ship that is rolling, pitching, and moving through water.

The fire control equipment that solves this problem is usually known as a gun fire control system. Each battery frequently has more than one of these systems. The whole battery may be controlled by one system or may be broken down into smaller groups, each controlled by a separate system.

A gun fire control system generally consists of two parts, one above deck and the other below deck in a protected position. The above-deck portion consists principally of a gun director that acts as the eyes of the battery. It is trained and elevated so that its optics and radar are always directed toward the target, thus establishing a line of sight. Directors vary in size and complexity. Some are large rotating structures with complex electrical driving equipment while others are small, hand-operated devices.

Introduction of radar into the fire control system has greatly enhanced its flexibility and accuracy. Radar provides more accurate range as well as target direction data that is almost as good as the best optics.

The below-deck components of the system usually consist of a computer and other related equipment, although the computer is sometimes part of the director. The computer receives data about target coordinates from the director and/or radar. It uses built-in data about the wind, motion of the ship, atmosphere, and the projectile path. It then computes this data into orders needed for the guns to aim properly to hit the target. These orders are transmitted directly to the train and elevation power drives of the gun mounts or turrets.

Computers make use of complex electrical and mechanical components to perform continuous complex calculations. Some are entirely mechanical, with quantities represented by positions of shafts; others are electromechanical, with quantities represented by both positions and voltages.

All naval ships now use gun fire control equipment.

SURFACE-LAUNCHED ANTIAIR WARFARE (AAW) MISSILES

The Navy uses surface-launched missiles both as offensive and defensive weapons. Surface-launched missiles are used to destroy surface, land, and air targets. The following sections briefly describe some of the Navy's surface-launched missiles.

In an antiair warfare (AAW) operation, guided missiles are the second line of defense. The first line of defense is aircraft. The AAW missiles in the Navy's current inventory include the Standard and Sea Sparrow missiles.

STANDARD

The Standard family of missiles is one of the most reliable in the Navy's inventory. Entering the fleet more than a decade ago, it replaced the Tartar and Terrier missiles. The Standard missile can be used against missiles, aircraft, and ships.

Some of the older guided-missile destroyers (DDGs) and the Oliver Hazard Perry-class frigates use the SM-1(MR) as a medium-range defense weapon. The SM-2(MR) is a medium-range defense weapon for Ticonderoga-class Aegis cruisers, California- and Virginia-class cruisers, Arleigh Burke-class destroyers, and Kidd-class destroyers.

Characteristics of the SM-1(MR) and SM-2(MR) missiles:

Length:	14 feet, 7 inches
Diameter:	13.5 inches
Wing span:	3 feet, 6 inches
Weight:	SM-1—1,100 pounds; SM-2—1,380 pounds
Range:	More than 15 nautical miles

The SM-2(ER) is an extended-range area defense weapon for the Leahy, Belnap, Bainbridge, Truxton, and Long Beach classes of cruisers.

Characteristics of the SM-2(ER) missiles:

Length: 26 feet, 2 inches

Diameter: 13.5 inches

Wing span: 5 feet, 2 inches

Weight: 2,980 pounds

Range: More than 30 nautical miles

SPARROW

The AIM/RIM-74 is a much-improved and highly successful air-to-air and surface-to-air version of the Sparrow missile. It has considerably greater invulnerability to electronic countermeasures (ECM) and better target-tracking capability. The fifth operational missile of the Sparrow family, it can be employed against attacking aircraft at all tactical speeds and altitudes in all weather.

With folding wings and clipped tail fins, it is compatible with the North Atlantic Treaty Organization (NATO) Sea Sparrow launcher. Entering the Navy's inventory in 1983, this latest version of the Sparrow family continues to be one of the Navy's most heavily procured missiles.

Characteristics of the Sparrow:

Length: 12 feet

Diameter: 8 inches

Wing span: 3 feet, 4 inches

Weight: 510 pounds

Speed: More than 2,660 miles per hour

Range: More than 30 nautical miles

CRUISE MISSILES

Since World War II the U.S. Navy has relied upon carrier aircraft to maintain sea control. Other navies, not having the money for carriers, developed antiship missiles. These missiles were first used successfully by the Egyptians to sink the Israeli destroyer *Elath* in 1967. The battle opened a new era in naval warfare. Any nation with a relatively modest investment could successfully challenge the most powerful naval forces.

The United States did not start development of a similar weapon until 1971. At that time the United States realized our Navy did not have the benefit of an equal weapon against ships equipped with antiship missiles. This led to the development of the Harpoon cruise missile. Further research eventually led to the development of the Tomahawk cruise missile.

HARPOON

The Harpoon (fig. 20-3) is a medium-range, rocket-boosted, turbo-sustained, antiship cruise

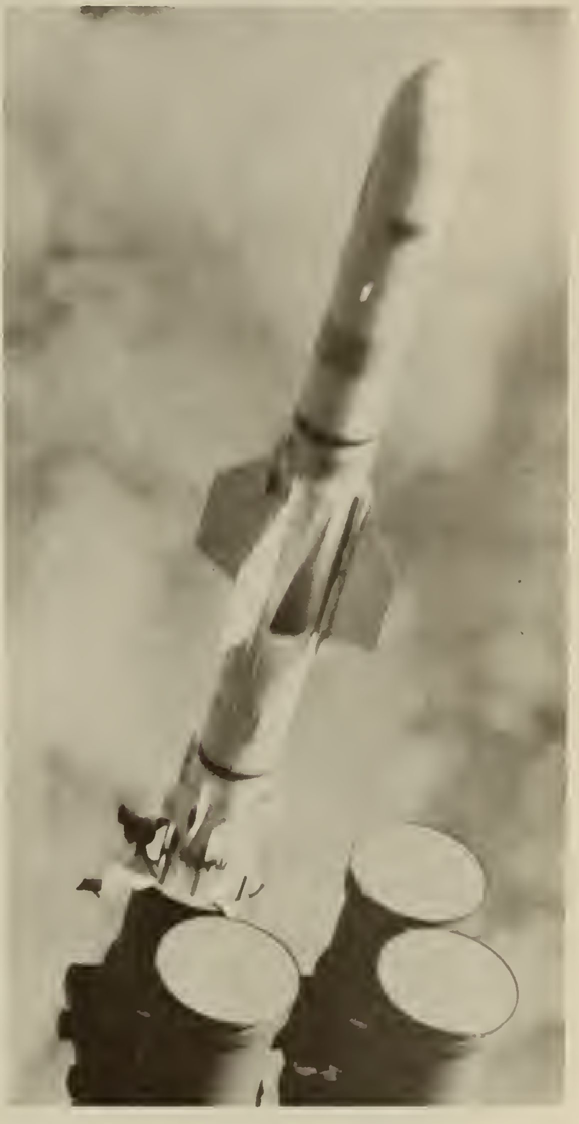

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Figure 20-3.—Harpoon missile being launched from a canister launcher aboard USS Leahy (CG-16).

missile. Its primary mission is to destroy hostile surface targets such as combatants, surfaced submarines, or other vessels. The Harpoon can be launched from surface ships, submarines, or aircraft (without the rocket booster).

It was introduced in the fleet on ships and submarines in 1977 and on the P-3 series aircraft in 1979. The Harpoon is being improved to add range and to decrease altitude in its sea-skimming mode.

The Harpoon was used effectively in attacks on Libyan targets in the Gulf of Sidra in 1986. The Navy is now developing a new infrared Harpoon variant called the Standoff Land Attack missile (SLAM).

Characteristics of the Harpoon:

Length:	15 feet (surface/submarine-launched); 12 feet, 7 inches (air-launched)
Diameter:	14 inches
Wing span:	3 feet (with booster fins and wings)

TOMAHAWK

The Tomahawk (fig. 20-4) is an all-weather submarine/surface-combatant-launched, long-range, subsonic, antiship or land-attack cruise missile. It can be conventionally armed for antisurface warfare and conventionally and nuclear armed for land-attack versions. After launch, a solid-propellant rocket booster propels the missile until a small turbofan engine takes over for the cruise portion of the flight.

The land-attack version of the Tomahawk has an inertial and terrain contour-matching (TERCOM) guidance system. The TERCOM system compares a stored map reference with the actual terrain to determine the missile's position. If necessary, it then makes a course correction to guide the missile to the target.

The antiship version has a modified Harpoon cruise missile guidance system. This system permits the launching and flying of the Tomahawk in the general direction of an enemy ship at low altitudes. At a programmed distance, the missile begins an active radar search to seek, acquire, and hit the target ship.

Tomahawk is a highly survivable weapon against predicted hostile defense systems. Radar detection of the Tomahawk is difficult because the missile has a very small cross section and can fly at extremely low altitudes. Similarly, infrared detection is difficult because the turbofan engine emits a low level of heat.

Characteristics of the Tomahawk:

Length:	20 feet, 6 inches (with booster)
Diameter:	20.4 inches
Wing span:	8 feet, 9 inches
Weight:	3,200 pounds (with booster)
Speed:	About 550 miles per hour
Range:	Land-attack, nuclear warhead—1,350 nautical miles Land-attack, conventional warhead— 600 nautical miles Antiship configuration—250 nautical miles

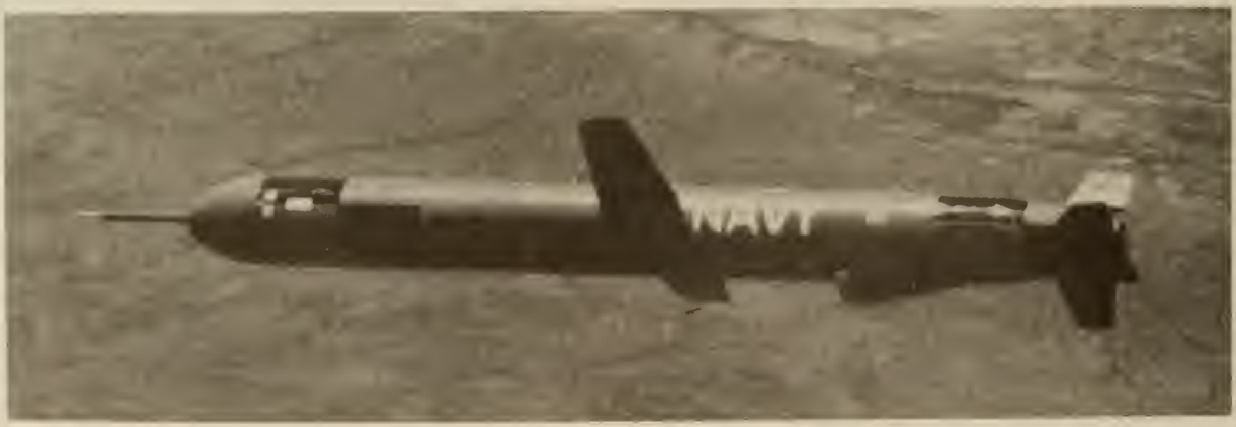

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Figure 20-4.—The first fully guided Tomahawk cruise missile in flight after being launched from an A-6 Intruder aircraft.

SUBMARINE-LAUNCHED MISSILES

Fleet ballistic missile submarines (SSBNs) carry the missiles the United States uses to ensure it has a second-strike capability in case of nuclear war. As discussed in chapter 11, SSBNs make up one leg of the TRIAD. These submarines carry the Trident (C-4 and D-5) missiles. Some of the older submarines carry the Poseidon (C-3) missiles.

Submarines are also capable of launching the Harpoon and Tomahawk cruise missiles discussed previously in this chapter.

TRIDENT II (D-5)

The Trident II (D-5) (fig. 20-5) is the sixth-generation member of the U.S. Navy's Fleet Ballistic Missile Program that started in 1956. Since then, the Polaris (A-1, A-2, and A-3), Poseidon (C-3), and Trident I (C-4) have served as a significant deterrent to nuclear aggression.

The Trident II is a three-stage, solid-propellant, inertially guided ballistic missile with a range of more than 4,000 nautical miles (4,600 statute miles). A considerable increase in payload was incorporated into the Trident II. This was

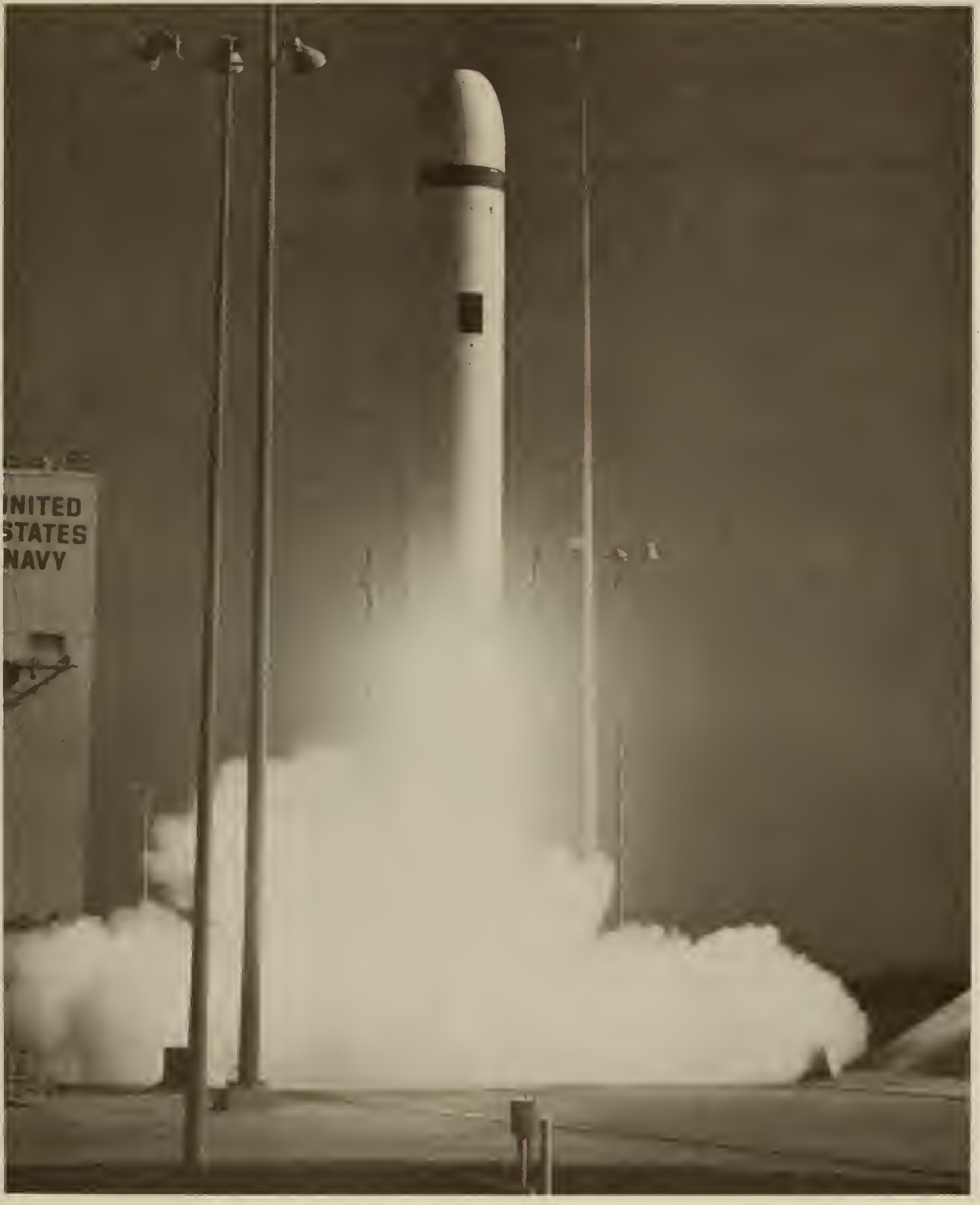

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Figure 20-5.—Trident II (D-5) missile.

done by encasement of the first two stages in epoxied graphite and the third stage in the filament-wound Kevlar. The range of the missile was also increased by the aerospike, a telescoping outward extension that reduces frontal drag by about 50 percent. The new Trident and Ohio classes of submarines carry 24 Trident II missiles that can be launched under water or on the surface.

Upon firing, the Trident II is ejected by the pressure of expanding gas within the launch tube. When the missile reaches the proper distance from the submarine, the first-stage motor ignites, the aerospike extends, and the boost stage begins. After about 65 seconds the first-stage motor and interstage separate from the missile. This allows the second-stage motor to ignite and continue the boost phase for approximately 65 seconds. With separation, the third stage burns for nearly 40 seconds, concluding the boost phase. At this point the missile is traveling more than 20,000 feet per second (13,600 mph). The post-boost control system provides thrust and control to the equipment section until all reentry bodies have been deployed.

Characteristics of the Trident II:

Length: 44 feet

Diameter: 83 inches

Weight: 130,000 pounds

Range: Over 4,000 nautical miles

TRIDENT I (C-4)

The Trident I (C-4), first deployed in 1979, will remain on patrol until phased out in the late 1990s. This missile was designed to have the same dimensions as the Poseidon (C-3) missile. This enabled the existing Poseidon submarines as well as the newer Trident submarines to use the Trident I. Trident I has a range almost double that of the Poseidon. It uses a three-stage, solid-fuel rocket instead of the two-stage, solid-fuel rocket used by the Poseidon.

Characteristics of the Trident I:

Length: 34 feet

Diameter: 74 inches

Weight: 73,000 pounds

Range: 4,000 nautical miles

POSEIDON (C-3)

The Poseidon (C-3) missile, though being phased out, is still in active use in the Navy. The Poseidon was the fourth missile in the Navy's Fleet Ballistic Missile Program. The physical dimensions of the Poseidon are identical to the Trident I. The key differences are in weight, range, propulsion, and warhead, all of which were improved in the Trident I missile.

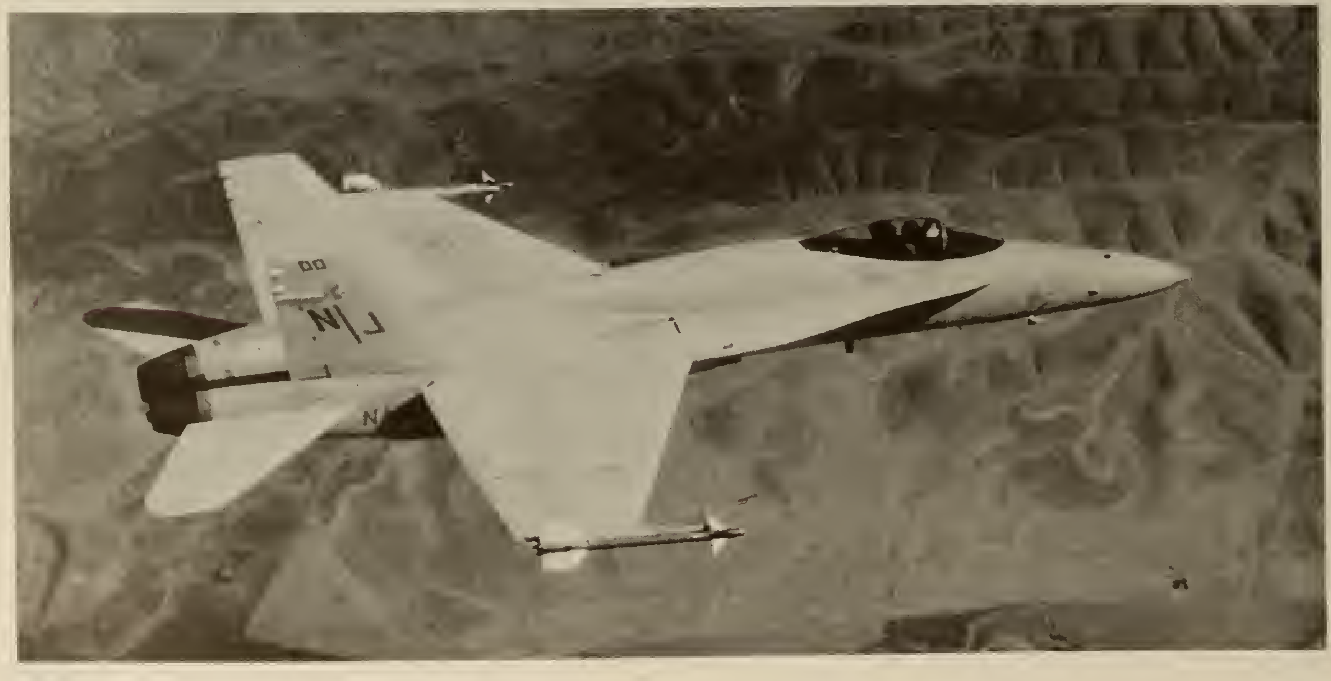

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Figure 20-6.—An F/A-18 Hornet With Sidewinder missiles.

Characteristics of the Poseidon:

Length:	34 feet
Diameter:	74 inches
Weight:	65,000 pounds
Range:	2,500 nautical miles

AIRBORNE WEAPONS

In today's high-performance aircraft, the trend is toward versatility by means of rockets; bombs; missiles; and, in some aircraft, guns. The Navy's Research and Development team is constantly seeking ways to improve existing airborne weapons while working simultaneously on new weapons. This section briefly describes some of the existing airborne weapons.

AIR-TO-AIR MISSILES

The Navy uses four air-to-air missiles. These missiles include the Sparrow, Sidewinder, Phoenix, and AMRAAM.

Sparrow

Although earlier described as a surface-to-air missile, the Sparrow missile is also used as an air-to-air missile. In this role, it provides Navy fighter aircraft with air superiority in a hostile environment.

Sidewinder

The Sidewinder air-to-air missile (fig. 20-6) is a short-range, dogfight missile used by all Navy fighters and attack aircraft against hostile aircraft.

The Sidewinder is one of the oldest, least expensive, and most successful missiles in the entire U.S. weapons inventory. The prototype of this heat-seeking missile was fired more than 30 years ago; since then various versions of it have been produced for more than 27 nations. The latest version has a significantly improved infrared countermeasure capability.

Characteristics of the Sidewinder:

Length:	9 feet, 5 inches
Diameter:	5 inches
Wing span:	2 feet, 1 inch
Weight:	195 pounds
Speed:	More than 1,900 miles per hour
Range:	More than 3.5 nautical miles

Phoenix

The Phoenix missile (fig. 20-7) is an all-weather air-to-air missile designed to destroy

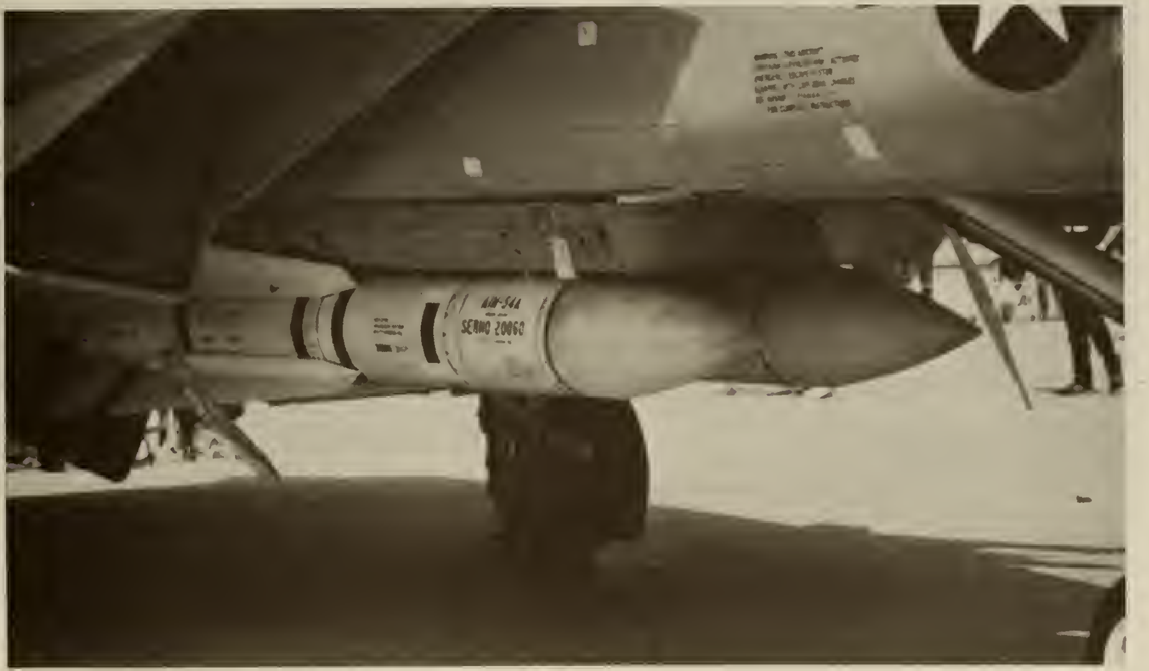

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Figure 20-7.—Two AIM-54A Phoenix missiles mounted on the undercarriage of an F-14A Tomcat aircraft.

multiple hostile air targets at great range. The Phoenix missile was introduced into the fleet with the F-14A aircraft and AN/AWG-9 weapons control system in 1974. The AN/AWG-9 system is capable of long-range tracking of multiple hostile air targets. It can launch up to six missiles against six targets simultaneously. In addition to the great range of the Phoenix missile, it has excellent intercept capability against high-speed maneuvering targets at both high and low altitudes.

Characteristics of the Phoenix:

Length:	13 feet
Diameter:	15 inches
Wing span:	3 feet
Weight:	1,024 pounds
Speed:	More than 3,040 miles per hour
Range:	More than 104 nautical miles

AMRAAM

The advanced medium-range air-to-air missile (AMRAAM) (fig. 20-8) is an all-weather, radar-guided, beyond-visual-range missile. It is designed to provide launch-and-leave capability as well as multiple-target engagement capability. The AMRAAM missile, a follow-on to the Sparrow missile, is used by F-14 and F/A-18 aircraft. It is faster, smaller, lighter, and better able to attack at a lower altitude than the Sparrow. With AMRAAM, the pilot can aim and fire several missiles at multiple targets simultaneously.

Characteristics of AMRAAM:

Length:	12 feet
Diameter:	7 inches
Wing span:	13 inches
Weight:	335 pounds
Speed:	More than 760 miles per hour
Range:	More than 35 nautical miles

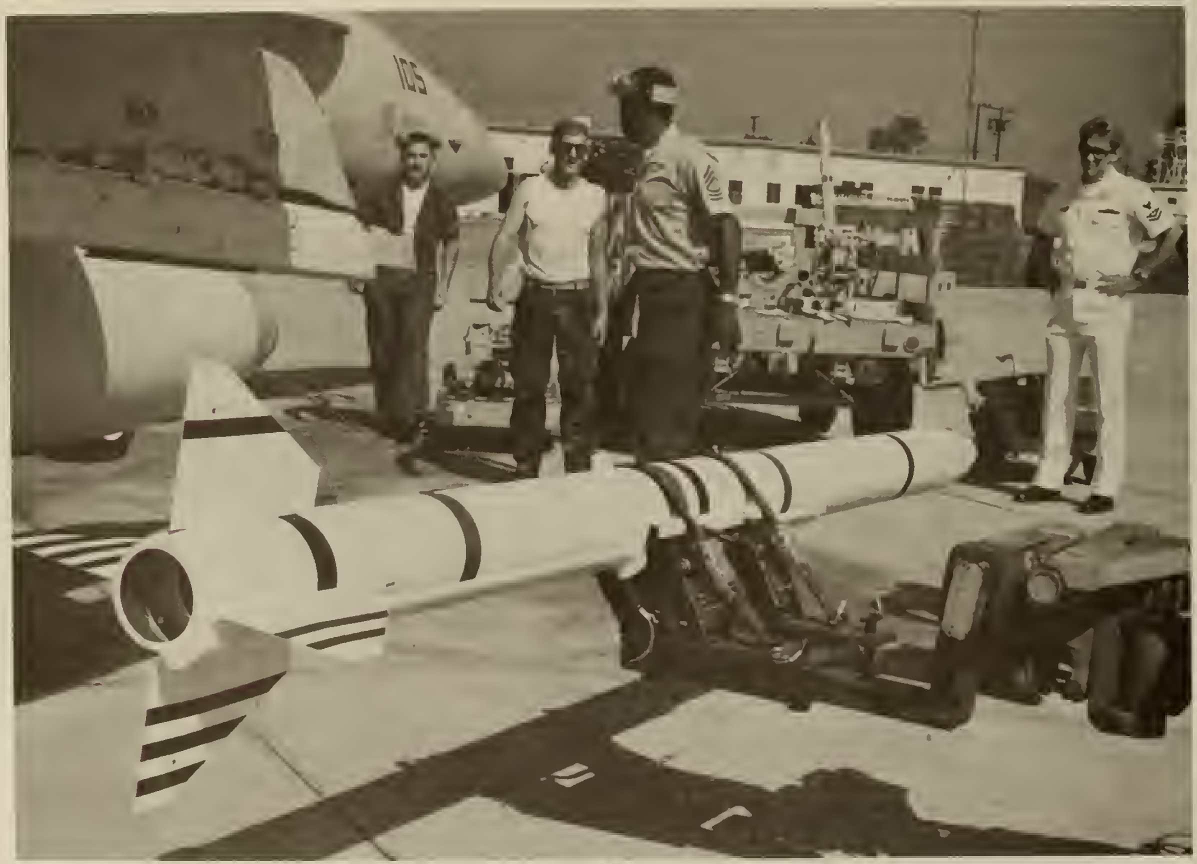

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Figure 20-8.—An AIM-120A advanced medium-range air-to-air missile (AMRAAM) being readied for loading on an F/A-18A Hornet aircraft.

AIR-TO-GROUND MISSILES

The Navy is currently developing two new air-to-ground missiles, the Tacit Rainbow missile, and the IR Maverick missile. However, these missiles are not yet operational. Air-to-ground missiles in current inventory include the Harpoon and Harm missiles.

Harpoon

The Harpoon missile discussed previously in this chapter under surface-to-surface missiles can also be used as an air-to-ground missile. Many naval aircraft are capable of carrying the Harpoon.

Harm

The Harm missile was designed to destroy or suppress enemy electronic emitters. It was designed especially to suppress those associated with radar sites used to direct antiaircraft guns and surface-to-air missiles. Harm is a high-speed antiradiation missile that succeeds the Shrike and Arm missiles as the Navy's primary defense-suppression air-to-surface missile. The Harm missile proved effective against Libyan targets in the Gulf of Sidra in 1986.

Characteristics of Harm:

Length:	13 feet, 8 inches
Diameter:	10 inches
Wing span:	3 feet, 8 inches
Weight:	807 pounds
Speed:	More than 760 miles per hour
Range:	More than 50 nautical miles

OTHER AIRBORNE WEAPONS

Other airborne weapons used by naval aircraft include 20-mm guns, rockets, and bombs.

20-mm Guns

The only 20-mm gun now used by operational fleet aircraft is the internally mounted, six-barrel, M61A1 20-mm gun. It has an electrically controlled and hydraulically operated ammunition drum. The gun fires at a rate of 6,000 rounds per minute in the GUNHI position and 4,000 rounds per minute in the GUNLOW position. The AV-8B Harrier uses a similar 25-mm gun.

Aircraft Rockets and Bombs

The Navy is currently developing new rockets and bombs to meet today's operational requirements. The new advanced rocket system will provide a high volume of air-to-ground fire from standoff ranges against a broad target spectrum. The new advanced bomb family (ABF) will provide two bombs to meet the general-purpose bombing requirements for increased blast, fragmentation, and penetration effects. The ABF will replace the Mk 80-series bomb with a 500-pound-class bomb optimized for blast fragmentation and a 1,000-pound-class bomb with improved penetration capabilities.

ANTISUBMARINE WARFARE WEAPONS

The Navy's primary operational weapons are (1) antisubmarine rockets (ASROCs), (2) submarine rockets (SUBROCs), and (3) torpedoes.

ASROC

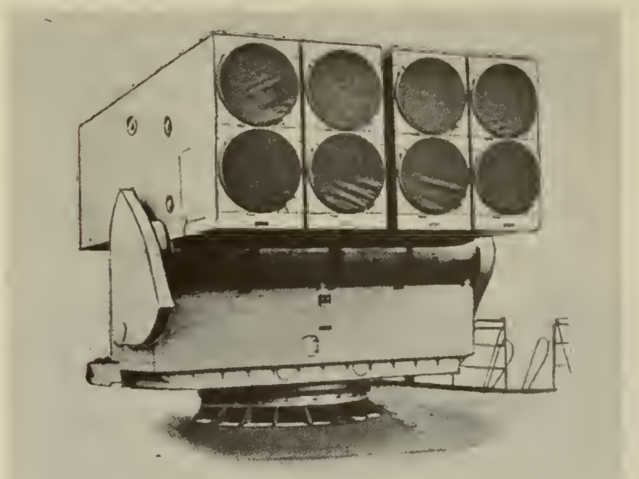
The ASROC missile is a subsonic, shipboard-launched, solid-fuel, rocket-propelled, antisubmarine ballistic projectile. The missile has two configurations—one with a depth charge and one with a torpedo.

The purpose of the ASROC is the destruction of submarines at long ranges. To achieve this, it delivers a torpedo or nuclear depth charge through the air to a specific point in the water. From that point, it can either attack under the most favorable circumstances or have the submarine within its lethal radius. Because of its standoff range, the ASROC enables the antisubmarine warfare (ASW) ship to launch its weapons before the submarine discovers it is under attack.

ASROC launchers are installed in FFs, DDs, DDGs, and CGs. On most ships, the launcher is a boxlike device containing eight cells, as shown in figure 20-9, each containing a missile.

SUBROC

The SUBROC, an antisubmarine rocket with a nuclear warhead, is launched from a submarine torpedo tube by conventional methods. After clearing the submarine, a rocket motor ignites and propels the weapon upward and out of the water. An inertial guidance system then directs the SUBROC toward its target. At a predetermined range, the motor and depth bomb separate, the latter continuing toward the target area. Upon reentry into the water, the bomb sinks to a preset depth, where the warhead explodes. The target may be a surface ship as well as a submarine. The SUBROC system can fire missiles in rapid succession, an important defense against enemy tactics.



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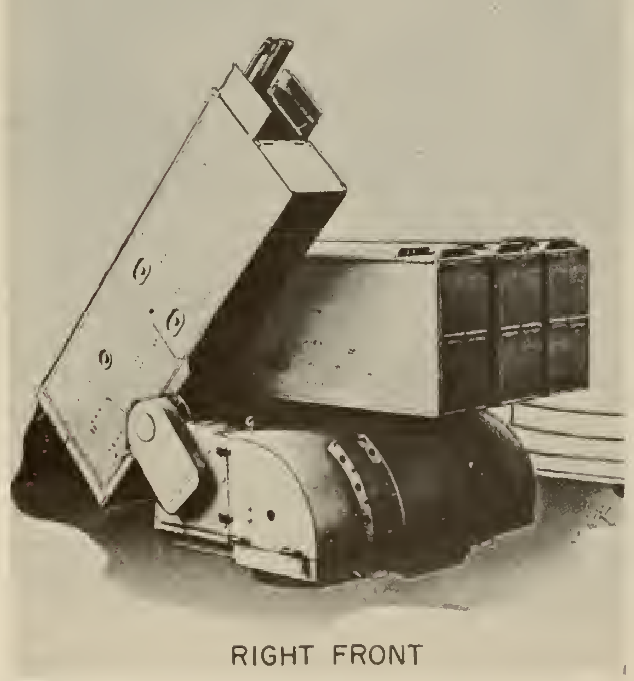

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Figure 20-9.—The ASROC cellular launcher.

SUBROC systems are installed in the Permit, Sturgeon, and Los Angeles classes of attack submarines (SSNs).

TORPEDOES

A torpedo can be launched from submarines, surface ships, or aircraft. The two primary torpedoes in the Navy inventory are the Mk 46 and the Mk 48. A new Mk 48 advanced capability (ADCAP) and Mk 50 torpedo are being phased into the fleet.

Mk 46

The Mk 46 torpedo is a lightweight ASW torpedo designed to attack high-performance submarines. The Mk 46 torpedo is presently identified as the NATO standard torpedo. Since introduction of the Mk 46 in 1967, navies of several other countries have acquired it.

The Mk 46 torpedo is designed to be launched from surface combatant torpedo tubes, ASROC missiles, and fixed- and rotary-wing aircraft.

Mk 48 and Mk 48 Advanced Capability (ADCAP)

The Mk 48 torpedo is carried by all Navy attack and ballistic missile submarines. The improved version—the Mk 48 ADCAP—is carried by the SSN 688 and SSN 637 classes of attack submarines. The Mk 48 ADCAP will also be used by the Seawolf-class attack submarines and Ohio-class ballistic missile submarines.

These torpedoes enable U.S. submarines to sink hostile surface ships or submarines in the presence or absence of torpedo countermeasures. The design of both of these weapons enables them to combat fast, deep-diving nuclear submarines and high-performance surface ships. Both torpedoes can operate with or without wire guidance and use active and/or passive homing. When launched they execute preprogrammed target-search, acquisition, and attack procedures. Both will conduct multiple reattacks in the unlikely event they miss the target.

The Mk 48 has been operational in the U.S. Navy since 1972. The Mk 48 ADCAP became operational in 1988 and was approved for full production in 1989. The ADCAP has significantly increased capabilities over the Mk 48. These capabilities allow its employment against the most advanced Soviet submarines.

Characteristics of the Mk 48 and the Mk 48 ADCAP:

Length:	19 feet
Diameter:	21 inches
Weight:	3,434 pounds (Mk 48) 3,695 pounds (ADCAP)
Speed:	More than 28 knots
Range:	More than 5 nautical miles
Depth:	More than 1,200 feet

Mk 50 Torpedo

The Mk 50 torpedo is an advanced, lightweight torpedo for use against the faster, deeper-diving, and more sophisticated submarines being developed and operated by the Soviet Union. The Mk 50 can be launched from all ASW aircraft and from torpedo tubes aboard surface combatant ships. The Mk 50 uses an active/passive acoustic homing guidance system. The Mk 50 is being phased in to replace the Mk 46 torpedo as the fleet's lightweight torpedo.

Characteristics of the Mk 50:

Length:	9 feet, 4 inches
Diameter:	12.75 inches
Weight:	750 pounds
Speed:	More than 40 knots

NUCLEAR WEAPONS

The United States has pursued a policy of making the fewest number of nuclear weapons cover as wide a range of military applications as possible. This capability is achieved by planned interchangeability. Nuclear warheads can be employed with rockets, torpedoes, missiles, and depth bombs by use of adaptational kits. Several Navy weapons (ASROC, for instance) have both conventional and nuclear capability.

The primary air-launched nuclear weapon is, of course, the nuclear bomb, of which little can be said regarding specific characteristics. Major operational components and nuclear components contained in a basic assembly are considered part of the bomb. A complete stockpiled weapon, however, may consist of more than one package. The reason is additional assemblies, such as the fuze, firing set, radar, and power supply, may be required to make up the complete nuclear weapon.

Because of the radioactive mushroom-type cloud resulting from a nuclear bomb, the deploying aircraft crew must be protected once a bomb is dropped. A safe separation time is provided by two methods. One is the use of a timing mechanism inserted in the bomb to delay detonation. The second is the use of a parachute to slow the bomb (retarded free-fall bomb). Either method allows the aircraft to reach a point of safety before weapon detonation.

AEGIS WEAPONS SYSTEM

Any discussion of the Navy's weapons systems would not be complete without a look at the shipboard integrated AAW combat weapons system (Aegis). For more than 40 years, the U.S. Navy has developed systems and tactics to protect itself from air attacks. Since the end of World War II, several generations of antiship missiles have emerged as an air threat to the fleet. The first combatant ship sunk by one of these missiles was an Israeli destroyer, hit by a Soviet-built missile in October 1967. The threat posed by such weapons was reconfirmed as recently as April 1988. At that time two Iranian surface combatants fired on U.S. Navy ships and aircraft in the Persian Gulf. The resulting exchange of antiship missiles led to the destruction of an Iranian frigate and corvette by U.S.-built Harpoon missiles. Modern antiship missiles can be launched several hundred miles away. Air, surface, and subsurface launches can be coordinated so that the missiles arrive on target almost simultaneously. Some cruise missiles have both nuclear and conventional variants.

The U.S. Navy's defense against this threat has continued to rely on the winning strategy of defense in depth. Guns were replaced in the late fifties by the first generation of guided missiles in our ships and aircraft. These missiles continued to perform well until the late sixties. By that time, we realized our reaction time, firepower, and operational availability in all environments did not match the threat. The Navy then started a comprehensive engineering development program to meet an operational requirement for an advanced surface missile system (ASMS). ASMS was renamed the Aegis weapons system (after the mythological shield of Zeus) in December 1969.

Based on the latest technology—particularly in digital computers and radar-signal processing—the Aegis weapons system was designed as a total weapons system, from detection to kill. The heart of the system is an advanced, automatic detect-and-track, multifunction phased-array radar—the AN/SPY-1. This high-power (4 megawatt) radar can perform search, track, and missile-guidance functions simultaneously with a track capacity of well over 100 targets. After several years of development and land-based testing, the first Engineering Development Model (EDM-1) was installed in the test ship, USS *Norton Sound* (AVM 1) in 1973. Within weeks the Aegis weapons system had successfully engaged the most difficult targets possible in extremely demanding antiair warfare scenarios intended to stress it to its limit.

The Aegis weapons system is the most capable surface-launched missile system the Navy has ever put to sea. It can defeat an extremely wide range of targets from wave top to directly overhead. It is extremely capable against antiship cruise missiles and manned aircraft flying in all speed ranges from subsonic to supersonic. The Aegis is effective in all environmental conditions. It has both all-weather capability and outstanding abilities in chaff and jamming environments.

The computer-based command-decision element is the core of the Aegis weapons system. It is this interface that makes the Aegis capable of simultaneous operations against a multimission threat: antiair, antisurface, and antisubmarine warfare. This combat system can also be used for overall force coordination.

The Aegis weapons system brings a revolutionary multimission combat capability to the U.S. Navy. Aegis-equipped ships are capable of engaging and defeating enemy aircraft, missiles, submarines, and surface ships. Aegis-equipped ships are key elements in modern carrier and battleship battle groups.

Several shipboard applications were studied before the design of the first Aegis ships was chosen. The design chosen was based on the hull and machinery designs of Spruance-class destroyers. Originally identified as a guided-missile destroyer (DDG-47), the class was redesignated a guided-missile cruiser. The first ship of the class, USS *Ticonderoga* (CG-47), was christened by Mrs. Nancy Reagan on Armed Forces Day 1981 and commissioned on 23 January 1983.

USS *Ticonderoga* deployed to the Mediterranean with the USS *Independence* battle group in October 1983. It supplied outstanding air defense coverage to our ships off the coast of Lebanon. Commenting on the ship's performance, the Chief of Naval Operations said, "*Ticonderoga* provided to the Eastern Mediterranean Task Force an impressive new tactical dimension which included 100 percent weapon system availability and a coherent air picture allowing the antiair warfare coordinator (AAWC) (embarked in *Ticonderoga*) to manage, rather than react to a difficult situation."

Since 1983 additional Aegis cruisers have joined USS *Ticonderoga* in the fleet. The 27th and final CG-47-class cruiser will be commissioned in 1994.

The commissioning of USS *Bunker Hill* (CG-52) opened a new era in surface warfare as the first Aegis ship outfitted with the vertical launching system (VLS). This system allowed greater missile selection, firepower, and survivability. The improved SPY-1B radar went to sea in USS *Princeton* (CG-59), ushering in another advance in Aegis capabilities.

In 1980 the preliminary plans for a smaller ship with Aegis capabilities were studied. Because of advanced technology, we can now build an Aegis weapons system compatible with a smaller ship while maintaining the multimission capability vital to modern surface forces. As a result, a contract was awarded in 1985 for construction of the first DDG-51-class ship.

The lead ship of the DDG-51 class bears the name of a living person—the legendary Admiral Arleigh "31-knot" Burke. He was the most famous destroyerman of World War II. Admiral Burke has attended each design phase of the DDG-51 and observed its keel laying in Bath, Maine.

The DDG-51s will be built in cycles, which allows incorporation of technological advances during construction. This allows for "forward-fitting" technology rather than very expensive "back-fitting" technology during scheduled overhauls. In other words, this allows for advanced planning to prevent costly changes after the completion of the ship. CG-47-class cruisers are also constructed by this method.

The surface Navy's Aegis ships provide area defense for the battle group as well as a clear air picture for more effective deployment of F-14 and F/A-18 aircraft. At present, the Aegis weapons system enables fighter aircraft to concentrate more on the outer air battle while cruisers and destroyers concentrate on battle group area defense. Technological advances in missile and computer battle management systems will soon permit Aegis-equipped ships to join carrier air assets in outer air defense. The highly accurate firing of Aegis will result in a decrease of asset expenditures.

As long as our Navy must steam "in harm's way" to carry out its assigned missions, it will require a formidable antiair warfare capability. The Aegis weapons system gives surface AAW forces a decided edge against the sophisticated modern air threat. Planned upgrades to standard missiles and evolving improvements to the Aegis weapons system promise the fleet an extremely capable AAW system well into the 21st century.

SUMMARY

To meet present and future threats, the Navy develops new weapons systems and improves existing systems. It often develops new weapons with physical characteristics similar to their predecessors to preclude designing a new system. This practice has the advantage of being both cost effective and time saving.

Many weapons are capable of being used by different types of ships and aircraft. This practice is also cost effective. During periods of budget reductions, this policy just makes good sense.

One fact about our weapons and weapons systems, however, will always remain constant—the Navy will always use every resource available to meet any threat.

REFERENCES

Naval Science for the Merchant Marine Officer, NAVEDTRA 38051, Naval Education and Training Program Management Support Activity, Pensacola, Fla., 1986.

Navy Fact File, 9th ed., Office of Information, Washington, D.C., 1989.

DEVIL TO PAY

TODAY THE EXPRESSION "DEVIL TO PAY" IS USED PRIMARILY AS A MEANS OF CONVEYING AN UNPLEASANT AND IMPENDING HAPPENING. ORIGINALLY, THIS EXPRESSION DENOTED THE SPECIFIC TASK ABOARD SHIP OF CAULKING THE SHIP'S LONGEST SEAM.

THE "DEVIL" WAS THE LONGEST SEAM ON THE WOODEN SHIP, AND CAULKING WAS DONE WITH "PAY" OR PITCH. THIS GRUELING TASK OF PAYING THE DEVIL WAS DESPISED BY EVERY SEAMAN, AND THE EXPRESSION CAME TO DENOTE ANY UNPLEASANT TASK.

APPENDIX I

GLOSSARY

Upon entering a new occupation, a person usually is faced with a need to learn the vocabulary of the trade to understand and be understood by his or her co-workers. The Navy, especially, has a language all its own.

This glossary is printed for your convenience. You may notice the absence of some common Navy terms, as the glossary is not intended to be all-inclusive.

Naval Weapons Publication 3 (Revision E), *Naval Terminology*, is an excellent source of information for the definitions of naval terms and acronyms.

AA—Abbreviation for antiaircraft.

ABAFT—Farther aft, as "*Abaft* the beam."

ABEAM—On a relative bearing of 90 degrees (*abeam* to starboard) or 270 degrees (*abeam* to port).

ABOARD—In or on a ship. Extended to use ashore, as *aboard* a naval station.

ABREAST—Same as abeam.

ACCOMMODATION LADDER—A ladder suspended over and inclining down the side of a ship to enable people to board the ship from boats.

ADRIFT—Loose from moorings and out of control. Applied to anything that is lost, out of hand, or left lying about.

AFT—Toward the stern. Not as specific as abaft.

AFTER—That which is farthest aft, as *after* fireroom.

AFTERNOON WATCH—The 1200 to 1600 watch.

AGROUND—When any part of a ship or boat is resting on the bottom. A ship runs *aground* or goes *aground*.

AHOY—A hail or demand for attention, as "Boat *ahoy*."

ALEE—In the direction toward which the wind is blowing; downwind.

ALIVE—Lively, energetic.

ALL FAST—Tied or lashed down as necessary.

ALL HANDS—The entire ship's company.

ALOFT—Generally speaking, any area above the highest deck.

ALONGSIDE—By the side of the pier or ship.

AMIDSHIPS—An indefinite area midway between the bow and the stern. *Rudder amidships* means that the rudder is in line with the ship's centerline.

ANCHOR—(1) Any device used to make a floating body fast to the bottom. (2) The act of so making fast. (3) The act of securing or fixing the lower end of a guy or stay or the lower end of a shore.

ANCHORAGE—An area designated to be used by ships for anchoring.

ANCHOR BALL—A black circular shape hoisted to indicate that the ship is anchored.

ANCHOR BUOY—A small float secured to the anchor by a light line to mark the position of the anchor.

ANCHOR CABLE—The line, wire, or chain that attaches a vessel to its anchor.

ANCHOR WATCH—A group of persons available to the OOD during the night for such duties as heaving in or paying out the cable.

ANNUNCIATOR—A device, usually electromechanical, used to indicate or transmit information. See Engine Order Telegraph.

ARMAMENT—The weapons of a ship.

ARMORED DECK—A deck, below the main deck, that provides added protection to vital spaces.

ASTERN—Directly behind a ship.

ATHWART—Across; at right angles to.

AUXILIARY—(1) Extra, or secondary, as *auxiliary* engine. (2) A vessel whose mission is to supply or support the combatant forces.

AVAST—Stop, as "*Avast* heaving."

AYE AYE—Reply to a command or order, meaning "I understand and will obey."

BACK—(1) To go backwards. (2) Act of the wind in changing direction counterclockwise.

BACKSTAY—Piece of standing rigging leading aft.

BAIL—(1) To rid a boat of water by dipping it out. (2) A rigid member affording support at two end points, as the *bail* (handle) of a bucket or the support for an accommodation ladder.

BALLAST—Weight (solid or liquid) loaded into a ship to increase stability.

BAR—A long, narrow shoal across a harbor entrance.

BARBETTE—A heavily armored cylinder extended downward from a gun turret to the lowest armored deck to provide protection to the turret below the gunhouse and the projectile- and powder-handling crews.

BARGE—(1) A blunt-ended, flat-bottomed, waterborne craft, usually non-self-propelled, used to haul supplies or garbage. (2) A type of motorboat assigned for the personal use of a flag officer.

BARNACLES—Small shellfish that are found attached to bottoms of vessels, pilings, and other submerged structures.

BATTEN—(1) A long strip of steel wedged against the edges of tarpaulins on a hatch to make the hatch watertight. (2) Removable wood or steel members used in a ship's holds to keep cargo from shifting.

BATTEN DOWN—The act of applying battens to a hatch. Extended to mean the closing of any watertight fixture.

BATTLE LANTERN—A battery-powered lantern for emergency use.

BEAM—(1) The extreme breadth of a vessel. (2) A transverse frame supporting a deck.

BEAR—The act of locating a particular point, or bearing, as "The lighthouse *bears* 045 degrees."

BEAR A HAND—(1) Provide assistance, as "*Bear a hand* with rigging this stage." (2) Expedite, as in "*Bear a hand* with readiness for sea reports."

BEARING—The direction of an object from an observer, measured in degrees clockwise from a reference point. *True bearing* is the angular difference between lines drawn from the observer to true north and to the object; *magnetic bearing* is the direction of the object measured on a magnetic compass; *relative bearing* is the angle between the ship's head and the object.

BECKET—(1) An eye for securing one end of a line to a block. (2) A rope eye on a cargo net. (3) Shortened form of becket bend.

BECKET BEND—A knot used to tie two lines together.

BELAY—(1) To secure a line to a fixed point. (2) Order to disregard a previous order or to stop an action, as "*Belay* the last order," or "*Belay* the small talk."

BELOW—Downward, beneath, or beyond something, as to lay *below*; *below* the flight deck; *below* the horizon.

BEND—To join two lines together; the type of knot so used.

BERTH—(1) Bunk. (2) Duty assignment. (3) Mooring space assigned to a ship.

BIGHT—The middle part of a line, or a loop in a line.

BILGE—(1) Bottom of the hull near the keel. (2) To fail an examination. (3) *Bilge* water is foul water, so to apply that term to something implies it is worthless.

BILGE KEEL—A keel attached to the outside of a ship's hull, near the turn of the bilge, to reduce rolling.

BILLET—Place or duty to which one is assigned.

BINNACLE—Stand containing a magnetic compass.

BINNACLE LIST—List of persons excused from duty because of illness.

BITT—Cylindrical upright fixture to which mooring or towing lines are secured aboard ship.

BITTER END—The free end of a line.

BLOCK—A frame containing a pulley, called a sheave, around which a line (known as a fall) is attached.

BLOCK AND TACKLE—See Purchase.

BOARD—(1) The act of going aboard a vessel. (2) A group of persons meeting for a specific purpose, as an investigation *board*.

BOAT—A small craft capable of being carried aboard a ship.

BOAT BOOM—A spar rigged out from the side of an anchored or moored ship to which boats are tied when not in use.

BOAT FALLS—Tackle used to hoist and lower a boat in davits.

BOATHOOK—A staff having a hook at one end. Used for fending a boat off, hooking a line, etc.

BOATSWAIN'S CHAIR—A seat attached to a gantline for hoisting a person aloft.

BOATSWAIN'S LOCKER—A compartment, usually forward, where line and other equipment used by the deck force are stowed.

BOLLARD—A strong, cylindrical upright fixture on a pier to which a ship's mooring lines are secured.

BOOM—A spar used for hoisting loads; usually movable.

BOOT TOPPING—Black paint applied to a ship's sides along the waterline.

BOW—The forward end of a ship or boat.

BOW HOOK—Member of a boat's crew whose station is forward.

BREAK OFF—To walk away with a line or run a line in, let go, return to the point from which the line is being hauled, take a new hold, and walk away again.

BREAK OUT—To bring out supplies or equipment from a storage space.

BREAST LINE—Mooring line leading from the ship to the pier at right angles to the ship.

BRIDGE—Area in the superstructure from which a ship is operated. See Conn.

BRIDLE—A span of rope, chain, or wire with both ends secured and the strain taken on the midpart.

BRIG—Naval term for jail.

BROACH TO—To get crosswise (without power) to the direction of wave travel; particularly dangerous near a beach.

BROAD—Wide, as *broad* in the beam.

BROAD ON THE BOW—Halfway between dead ahead and abeam.

BROAD ON THE QUARTER—Halfway between abeam and astern.

BROADSIDE—(1) The act of firing all main battery guns to one side at once. (2) Sidewise, as "The current carried the ship *broadside* toward the beach." *Broadside to* is to have the side toward something, as "The ship hit the pier *broadside to*."

BROW—Navy term for gangplank. Used as a crosswalk from one ship to another and from a ship to a pier.

BULKHEAD—A vertical partition in a ship; never called a wall.

BULKHEADING—Complaining or grumbling with the intention of being overheard by seniors.

BULLNOSE—A closed chock at the bow.

BULWARK—Solid barrier along the edges of the weather deck that serves as a protection against bad weather.

BUOY—An anchored float used as an aid to navigation or to mark the location of an object.

CABIN—Living compartment of a ship's commanding officer.

CABLE—A line, wire, or chain that connects a ship to its anchor.

CAISSON—Gate at the end of a dry dock that keeps out the water.

CALL—(1) The boatswain's pipe. (2) A signal sounded on the boatswain's pipe.

CAMEL—Large timber or rectangular structure used as a fender between a ship and the pier.

CAN BUOY—A navigational buoy, cylindrical in shape, that marks the port side of a channel from seaward; odd-numbered and painted green.

CANOPY—A cover fitted over part of a boat.

CAPSTAN—That part of a vertical shaft windlass around which a working line is passed; used for heaving in anchors and hawsers.

CARRICK BEND—A knot used for joining two lines. The single carrick bend is seldom used because it jams tight; instead, a double carrick bend is used, particularly for bending towing hawsers together.

CARRY AWAY—To break loose, as "The rough seas *carried away* the lifelines."

CAULK—The act of stuffing the seams between wooden planking with oakum for watertightness.

CHAFING GEAR—Material used to protect lines from excessive wear.

CHAIN LOCKER—Space where anchor chain is stowed.

CHAIN MARKINGS—A series of turns of wire and stripes of paint on certain links of each anchor chain. They show the scope or amount of chain that has run out.

CHAINS—Area (a platform on large ships) where the leadsman stands when taking soundings with the hand lead.

CHART—Nautical counterpart of a road map, showing land configuration, water depths, and aids to navigation.

CHECK—(1) To slow or ease. (2) To pay out just enough line to prevent its parting when under a strain, as to *check* a line. (3) To investigate or examine something.

CHEEK—One of the sides of a block.

CHOCK—Deck fitting through which mooring lines are led.

CHOW—Food.

CHRONOMETER—An accurate clock used in navigation.

CHURCH PENNANT—A blue and white pennant flown above the ensign during church services on board a Navy ship.

CLAMP DOWN—To sprinkle the deck with water and dry it with a swab.

CLEAT—A metal casting with two projecting arms to which a line is belayed.

COAMING—Bulwark around a hatch opening.

COFFERDAM—A void between compartments or tanks of a ship for purposes of insulation.

COIL—To lay down a line in circular turns piled loosely on top of one another.

COLLISION BULKHEAD—A bulkhead, stronger than normal, located forward to control flooding in the event of a head-on collision.

COLORS—(1) The national ensign. (2) The ceremony of raising and lowering the ensign.

COMBATANT SHIP—A ship whose primary mission is combat.

COMMISSION PENNANT—A long, narrow pennant with stars and stripes; flown only aboard a commissioned ship.

COMPANIONWAY—Deck opening giving access to a ladder (includes the ladder).

COMPARTMENT—Interior space (room) in a ship.

COMPLETE DECK—Any deck that extends the length of a ship from side to side.

CONN—Station, usually on the bridge, from which a ship is controlled; the act of controlling the ship's movements.

COURSE—A ship's desired direction of travel, not to be confused with heading, which is the direction in which the bow is pointed at any given instant.

COVER—(1) To protect. (2) A shelter. (3) Headgear, and the act of donning same.

COXSWAIN—Enlisted person in charge of a boat.

DARKEN SHIP—To turn off all external lights and close all openings through which lights could be seen from outside the ship.

DAVITS—A crane or mechanical arms that project over the side of a ship and are used to lower or hoist a boat in or out of the water.

DEAD AHEAD—Directly ahead; a relative bearing of 000 degrees. *Dead astern* is 180 degrees relative.

DEAD IN THE WATER—Said of a ship that has stopped and has no way on, or no movement through the water.

DECK—Horizontal planking or plating that divides a ship into layers.

DECK SEAMANSHIP—The upkeep and operation of all deck equipment.

DEEP SIX—To throw something overboard.

DIP—The act of lowering a flag partway down the staff as a salute to, or in reply to a salute from, another ship.

DISTANCE LINE—A line stretched between two ships engaged in replenishment or transfer operations under way. The line is marked at 20-foot intervals to aid the conning officer in maintaining station.

DIVISION—(1) A main subdivision of a ship's crew (1st, E, G, etc.). (2) An organization composed of two or more ships of the same type.

DOCK—Commonly refers to any pier or wharf; but, strictly speaking, it refers only to the space alongside a pier or in dry dock.

DOG—(1) A lever or a bolt and thumbscrews used for securing a watertight door. (2) The act of dividing a 4-hour watch into 2-hour watches.

DOG DOWN—To set the dogs on a watertight door.

DOG WATCH—The 1600 to 1800 and 1800 to 2000 watches.

DOLPHIN—(1) A cluster of piles at the end of a pier. (2) A porpoise.

DOUBLE UP—To double mooring lines for extra strength.

DRAFT—The vertical distance from the keel to the waterline.

DRAFT MARKS—The figures fastened to the stem and stern, the lower edges of which indicate the draft of the ship.

DRIFT—The speed at which a ship is pushed off course by wind and current.

DROGUE—See Sea Anchor.

DRY DOCK—A dock from which the water may be removed for the purpose of inspecting or working on a ship's bottom; it may be either floating or built into the shore.

EASE—To relax, to slack.

EASE HER—Reduce the amount of rudder the ship is carrying.

EBB, EBB TIDE, ON THE EBB—A falling tide.

EIGHT O'CLOCK REPORTS—Reports received shortly before 2000 by the executive officer from the heads of departments.

ENGINE-ORDER TELEGRAPH—Electromechanical device that transmits orders to the engine room concerning the speed of the engines.

ENSIGN—(1) The national flag. (2) The lowest grade of commissioned officer.

EYES—The most forward part of the forecastle.

FAIRLEAD—A device, usually a block, for leading a line around a corner.

FAIRWAY—Thoroughfare for a ship.

FALL—A line, wire, or chain rove on a purchase.

FANTAIL—The after end of the main deck.

FATHOM—Unit of measurement equal to a depth of 6 feet.

FENDER—A cushioning device hung over the side of a ship to prevent contact between the ship and the pier or another ship.

FID—A long, tapered, wooden tool used to open the strands of a line for splicing.

FIELD DAY—A day devoted to general cleaning, usually in preparation for an inspection.

FIREMAIN—Piping system to which fire hydrants are connected.

FIRST WATCH—The 2000 to 2400 watch. Also called evening watch.

FIRST CALL—A routine call sounded as a warning signal for roll call formations and many other ceremonies; also sounded 5 minutes before morning and evening colors.

FISHHOOK—A broken end of wire protruding from a wire rope.

FLAG OFFICER—An officer of the rank of commodore or higher.

FLAGSTAFF—Vertical staff at the stern to which the ensign is hoisted when moored or at anchor.

FLAT—Partial deck (often a grating) to provide walking and working surfaces; used extensively in engineering spaces.

FLEET—An organization of ships, aircraft, Marine forces, and shore-based fleet activities, all under one commander, for the purpose of conducting major operations.

FLOOD—(1) To fill a space with water. (2) A rising tide.

FOGY—(Pronounced fo-gee.) A longevity pay increase.

FORE—Forward.

FORE AND AFT—The entire length of a ship, as in "Sweep down *fore and aft*."

FORECASTLE—(Pronounced fok-sul.) Forward section of the main deck, generally extending from the stem aft to just abaft the anchor windlass.

FOREMAST—First mast aft from the bow.

FORENOON WATCH—The 0800 to 1200 watch.

FORESTAY—A stay leading forward.

FOUL—(1) Entangled, as "The lines are *foul* of each other." (2) Stormy.

FOUNDER—To sink because of being overwhelmed by the sea.

FRAME—The athwartship strength member of a ship's hull.

FRAPPING LINES—Lines passed around boat falls to steady the boat when hoisting or lowering.

FREEBOARD—Vertical distance from waterline to weather deck.

GAFF—A light spar set at an angle from the upper part of a mast, from which the ensign is flown when a ship is under way.

GALLEY—Space where food is prepared. Never called a kitchen.

GANGWAY—(1) The opening in a bulwark or lifeline to provide access to a brow or an accommodation ladder. (2) Given as an order, it means "Clear the way."

GANTLINE—Line used for hoisting and lowering a boatswain's chair.

GENERAL ALARM—A sound signal of a pulsating ringing tone used only on board ship for calling all hands to general quarters.

GENERAL QUARTERS—The condition of full readiness for battle.

GIG—Boat assigned for the commanding officer's personal use.

GIRDER—A longitudinal supporting a deck.

GRANNY KNOT—A bungled square knot.

GRAPNEL—A small, four-armed anchor used to recover objects in the water.

GRIPE—Device for securing a boat at its davits or in a cradle.

GROUND TACKLE—Equipment used in anchoring or mooring with anchors.

GUNWALE—(Pronounced gunnel.) The upper edge of the sides of a ship.

GUY—A line used to steady a spar or boom.

HALF DECK—A partial deck below the main deck.

HALYARD—A light line used to hoist a flag or pennant.

HAND—A ship's crew member.

HANDSOMELY—Slowly and carefully.

HARD OVER—Condition of a rudder that has been turned to the maximum possible rudder angle.

HASH MARK—Service stripe; a red, blue, or gold diagonal stripe across the left sleeve of an enlisted person's jumper or coat; each stripe indicates 4 years' service.

HATCH—A square or rectangular access in a deck.

HAUL—To pull in or heave on a line by hand.

HAUL OFF—Changing a vessel's course to keep clear of another vessel.

HAWSEPIPE—Opening through which the anchor cable runs from the deck out through the side of the ship.

HAWSER—Any heavy wire or line used for towing or mooring.

HEAD—(1) The upper end of a lower mast boom. (2) Compartment containing toilet facilities. (3) Ship's bow.

HEADING—The direction toward which the ship is pointing at any instant.

HEAVE—To throw.

HEAVE AROUND—(1) The act of hauling in a line, usually by means of a capstan or winch. (2) General term for "Get to work."

HEAVE IN—Take in line or cable.

HEAVE OUT AND TRICE UP—Announcement given at reveille to persons sleeping in hammocks. It meant, "Get up and lash up your hammocks." This term now applies to ships equipped with bunks.

HEAVE TO—Stopping or reducing headway of a vessel just enough to maintain steerageway.

HEAVING LINE—A line with a weight at one end that is heaved across an intervening space for the purpose of passing over a heavier line.

HELM—Mechanical device used to turn the rudder; usually a wheel aboard ship; a lever in boats.

HELMSMAN—Person who steers the ship by turning the helm.

HIGHLINE—The line stretched between the ships under way on which a trolley block travels back and forth for transfer of material and personnel.

HITCH—(1) Used to bend a line to or around a ring or cylindrical object. (2) Common term for an enlistment.

HOLD—Large cargo stowage space aboard ship.

HOLDING BULKHEAD—The innermost of a series of bulkheads that form the tanks and voids of the torpedo protection system.

HOLIDAY—Space on a painted surface that the painter neglected to cover.

HOOK—Familiar term for the anchor.

HORN—One of the projections of a cleat.

HOUSE—The act of two-blocking (pulling up tight) an anchor in its hawsepipe.

HULL—The shell, or plating, of a ship from keel to gunwale.

HULL DOWN—Refers to a ship that is so far over the horizon that only its superstructure or top hamper is visible.

INBOARD—Toward the centerline.

INHAUL LINE—Line used to haul the trolley back to the delivering ship during highline transfers.

INLET—A narrow strip of sea extending into the land.

INNER BOTTOM—The inside bottom in a system of double bottoms.

INSHORE—Close to the shore.

IRISH PENNANT—Loose, untidy end of line left adrift. Also called deadman or cow's tail.

ISLAND—Superstructure on starboard side of the flight deck of an aircraft carrier.

JACK—Starred blue flag (representing the union of the ensign) flown at the jackstaff of a commissioned ship not under way.

JACKSTAFF—Vertical spar at the stem to which the jack is hoisted.

JACKSTAY—Any horizontal line or wire for the support of articles (such as seabags).

JACOB'S LADDER—A portable rope or wire ladder.

JETTY—A structure built out from shore to influence water currents or to protect a harbor or pier.

JUMP SHIP—The act of deserting a ship.

JURY RIG—Any makeshift device or apparatus.

KAPOK—Material used to stuff life jackets and other lifesaving apparatus.

KEDGE—(1) A small anchor. (2) The act of moving a ship by hauling it ahead by heaving in on a line to a laid-out anchor.

KEEL—The lowermost longitudinal strength member from which the frames and plating rise.

KEEL BLOCK—One of a series of blocks along a dry-dock bed; used to support the keel of a vessel in dry dock.

KEELSON—That part of a boat's keel located inside the boat.

KING POST—One of a pair of short, strong uprights used to support the cargo booms of cargo vessels.

KING SPOKE—Spoke on the steering wheel that is upright when the rudder is amidships; usually distinctively marked, as with a Turk's head.

KNOCK OFF—Quit working.

KNOT—(1) A unit of measurement of speed equal to one nautical mile (6,080 feet) per hour. (2) A collective term for hitches and bends.

LADDER—A shipboard flight of steps.

LANDING CRAFT—Vessel especially designed for landing troops and equipment directly on a beach.

LANDING SHIP—A large seagoing ship designed for landing large numbers of personnel and heavy equipment directly on a beach.

LANYARD—(1) Any short line used as a handle or as a means for operating some piece of equipment. (2) A line used to attach an article to a person, as a pistol *lanyard*.

LASH—To secure an object by turns of line, wire, or chain.

LASHING—Line, wire, or chain used to lash an article.

LASH-UP—An uncomplimentary term applied to a rig, device, or system meaning it is in disorder. For example, "What a *lash-up* they have there."

LAUNCH—(1) To float a vessel off the ways in a building yard. (2) A power boat, usually over 30 feet long.

LAY—(1) To go to a specific place, such as "*Lay* aloft." (2) To put something down, as to *lay* tile. (3) The direction of twist of the strands in a line or wire.

LEAD LINE—A narrow block of lead weighing from 7 to 14 pounds attached to a marked line. Used by leadsman to determine depth of water.

LEADSMAN—Person who uses the lead line.

LEE—An area sheltered from the wind; downwind.

LEE HELMSMAN—A spare helmsman who usually operates the annunciator. Formerly referred to the helmsman who stood on the lee side of the wheel.

LEE SHORE—A shore that is leeward of the ship.

LEEWARD—(Pronounced loo-urd). Side of the ship opposite the direction from which the wind is blowing.

LIBERTY—Permission to be absent from a ship or station for a short time.

LIE OFF—To heave to at some distance from shore.

LIFE BUOY—A buoyant ring or some other floating device, except a life jacket or life belt, designed to support a person in the water.

LIFE JACKET—A buoyant, sleeveless jacket designed to support a person in the water; different from a life belt, which fits only around the waist.

LIFELINE—(1) In general, the lines erected around the edges of weather decks. Specifically, the topmost line. From top to bottom, the lines are named lifeline, housing line, and footrope. (2) A safety line bent to a person going over the side or aloft.

LIGHTEN SHIP—To make a ship lighter by removing weight.

LIGHT SHIP—The act of dispensing with blackout precautions.

LINE—Any rope that is not wire rope.

LOG—(1) A ship's speedometer. (2) The act of a ship in making a certain speed, as "The ship *logged* 20 knots." (3) Book or ledger in which data or events occurring during a watch are recorded.

LOOK ALIVE—Admonishment meaning "be alert" or "move faster."

LOOKOUT—Person stationed topside as a formal watch who reports all objects sighted and sounds heard to the OOD.

LOOM—The glow seen in the sky from a light that is below the horizon.

LUBBER'S LINE—Line engraved on the inside of a compass bowl, representing the ship's head, by which the ship's course is steered.

LUCKY BAG—Locker, under the charge of the master-at-arms, used to stow gear found adrift and deserters' effects.

MAGAZINE—Compartment used for the stowage of ammunition.

MAIN DECK—The uppermost complete deck.

MAINMAST—Second mast aft from the bow.

MAN—To assume a station, as to *man* a gun.

MAN-O-WAR—See Combatant Ship.

MARLINE—Two-strand, left-laid, tarred hemp.

MARLINESPIKE—Tapered steel tool used to open the strands of wire for splicing.

MARLINESPIKE SEAMANSHIP—The art of caring for and handling all types of line and wire.

MASTER-AT-ARMS—A member of a ship's police force.

MASTHEAD LIGHT—A 20-point, white running light located in the fore part of the ship; it may or may not be on the foremast.

MATE—A shipmate; another sailor.

MEET HER—Slow the swing of a ship by putting on opposite rudder.

MESS—(1) Meal. (2) Place where meals are eaten, as *mess* hall. (3) A group of personnel who take meals together, as the officers' *mess*.

MESSENGER—(1) A line used to haul another heavier line across an intervening space. (2) One who delivers messages.

MIDWATCH—The watch that begins at 0000 and ends at 0400.

MIND YOUR RUDDER—An order to the helmsman to steer the proper course.

MONKEY FIST—A complicated knot worked into the end of a heaving line to provide weight.

MOOR—(1) To anchor, using two anchors. (2) To make fast to a mooring buoy. (3) To make fast to a pier or another ship.

MOORING BUOY—A large, anchored float to which a ship may moor.

MORNING WATCH—The 0400 to 0800 watch.

MOTOR WHALEBOAT—A double-ended powerboat.

MUSTER—(1) A roll call. (2) The act of assembling for a roll call.

NEST—(1) Two or more boats stowed one within the other. (2) Two or more ships moored alongside each other.

NOTHING TO THE RIGHT (LEFT)—Order given to the helmsman not to allow the ship to come to right (left) of the course because of some danger lying on that side of the course.

NUN BUOY—A navigational buoy, conical in shape, that marks the starboard side of a channel from seaward. Even numbered and painted red.

OAKUM—Tarred hemp fiber used to caulk seams in wooden decks and boats.

OOD—Officer of the deck.

OFFSHORE—Some distance off the shore, as contrasted to inshore.

ON THE BEACH—Ashore; also applied to a sailor who is assigned to shore duty or is unemployed, retired, or otherwise detached from sea duty.

OUTBOARD—Away from the centerline.

OVERBOARD—Over the side.

OVERHAND KNOT—Simplest of all knots; made by passing one end of a line once around its standing part.

OVERHAUL—(1) To repair or recondition. (2) To overtake another vessel.

OVERHEAD—The underside of a deck forming the ceiling of the compartment below; never called a ceiling.

PAINTER—Line used to make a boat fast by its bow. When used under way, the *painter* causes the boat to swing out from the side of the ship.

PARCEL—The act of wrapping a line with narrow canvas strips to provide waterproofing or to build up a symmetrical shape for further covering.

PARTY—A group having a common temporary assignment or purpose, as working *party*, line-handling *party*, liberty *party*.

PASSAGEWAY—A corridor used for interior horizontal movement aboard ship.

PAY—Monthly salary.

PAY OUT—To feed out, or lengthen, a line.

PELORUS—A gyrocompass repeater used to take bearings.

PIER—Structure extending from land out into the water to provide a mooring for vessels.

PIER HEAD—Seaward end of a pier.

PIGSTICK—Small staff from which the commission pennant is flown.

PILOTHOUSE—Enclosure on the bridge that houses the main steering controls.

PILOTING—Branch of the science of navigation in which positions are determined by reference to visible objects on the surface or by soundings.

PIPE—The act of sounding a particular call on the boatswain's pipe.

PITCH—Vertical rise and fall of a ship's bow caused by head or following seas.

PLAIN WHIPPING—A whipping made without using a palm and needle.

POLLIWOG—A person who has never crossed the equator.

PORT—To the left of the centerline when facing forward.

PROTECTIVE DECK—See Armored Deck.

PROW—That part of the stem (bow) above the waterline.

PURCHASE—A machine that is a combination of one or more blocks rove with a line or wire. When rove with chain, it is called a chain fall.

PYROTECHNICS—Ammunition containing chemicals that produce smoke or a brilliant light when burning; used for signaling or for illumination.

QUARTER—Area between dead astern and either beam.

QUARTERDECK—Deck area designated by the commanding officer as the place to carry out official functions; the station of the OOD in port.

QUARTERMASTER—An enlisted assistant to the navigator.

QUARTERS—(1) Stations for shipboard evolutions, as general *quarters*, fire *quarters*, *quarters* for muster. (2) Living spaces.

QUAY—(Pronounced key.) A solid structure along a bank used for loading and off-loading vessels.

RADAR—A device that uses reflected radio waves to detect objects.

RANGE—(1) The distance of an object from an observer. (2) An aid to navigation consisting of two objects in line. (3) A water area designated for a particular purpose, as a gunnery *range*.

RAT GUARD—A hinged metal disk secured to a mooring line to prevent rats from crossing the line into the ship.

RAT-TAILED STOPPER—A braided tapering line used on boat falls, mooring lines, etc.

REDUCER—Fitting applied to a fire hydrant to permit the attachment of a hose of smaller diameter than the hydrant outlet.

REEF—An underwater ledge rising abruptly from the floor of the ocean.

REEVE—To thread a line through a pulley.

RELIEF—Person assigned to assume the duties of another.

RELIEVE—(1) To take the place of another. (2) To ease the strain on a line.

RIDE—A ship at anchor *rides* to its anchor as it swings on the chain attached to the anchor.

RIDING LIGHT—Light required to be shown by a vessel at anchor.

RIG—To set up any device or equipment, as *rig* a stage over the side.

RIGGING—Wires, ropes, and other lines used to support masts and other topside structures and to maneuver cargo. *Standing rigging* is used to support a ship's masts; *running rigging* is used to hoist or otherwise move equipment.

RISER—A pipe leading from the firemain to fireplugs on upper deck levels.

ROLLER CHOCK—A mooring chock that contains a roller for reducing friction.

ROPE—General reference to both fiber and wire rope. Fiber rope usually is referred to as line; wire rope is called rope, wire rope, or just wire.

ROPE YARN SUNDAY—Free time given during a workday (usually an afternoon) to allow personnel to take care of personal business.

RUDDER—Device attached to a ship's stern that controls the ship's direction of travel.

RUNNER—A purchase containing one single-sheave movable block.

RUNNING BOWLINE—A slipknot made by tying a small bowline around a line's own standing part.

RUNNING LIGHTS—Navigational lights required to be shown at night by a vessel under way.

SACK—Bunk.

SCUPPER—The waterway along the gunwales.

SCUTTLE—(1) Round, watertight opening in a hatch. (2) The act of deliberately sinking a vessel.

SCUTTLEBUTT—(1) Originally a ship's water barrel (called a butt), which was tapped (scuttled) by the insertion of a spigot from which the crew drew their drinking water; now applied to any drinking fountain. (2) In the old days the scuttlebutt was a place for personnel to exchange views and news when they gathered to draw their water; hence, the term *scuttlebutt* is applied to any rumor.

SEA—(1) The ocean in general. (2) The overall undulations of the surface; individually they are called waves, but as a whole they are referred to as *seas*. A ship takes a big *sea*, not a wave, over the bow.

SEA ANCHOR—A device streamed from the bow of a vessel for the purpose of holding it end-on to the sea.

SEAMANSHIP—(1) The art or skill of handling a vessel. (2) Skill in the use of deck equipment, boat handling, and the care and use of line and wire.

SEAWORTHY—A vessel capable of withstanding normal heavy weather.

SECOND DECK—First complete deck below the main deck.

SECURE—(1) To make fast, as to *secure* a line to a cleat. (2) To cease, as to *secure* from fire drill.

SERVICE FORCE—The organization providing logistic support to the combatant forces.

SET—The direction toward which a ship is pushed by the effects of wind and current. See Drift.

SET UP—To tighten up, with particular reference to dogs and turnbuckles.

SHAKE A LEG—An admonishment to move faster.

SHAKE DOWN—The training of a new crew to develop efficiency in operating a ship.

SHEAVE—Pulley in a block around which the fall (line) runs.

SHEER STRAKE—The uppermost strake in a ship's side plating.

SHEET BEND—Same as Becket Bend.

SHELL—A vessel's hull plating from the keel to the main deck; also called skin.

SHELLBACK—A person who has crossed the equator.

SHIFT—(1) The act of the wind in changing direction. (2) The act of moving a rudder with angle on it to the same angle on the opposite side.

SHIFT COLORS—To change the arrangement of the colors upon getting under way or coming to moorings.

SHIP—(1) Any large seagoing vessel capable of extended independent operation. (2) To take on water unintentionally.

SHIP OVER—To reenlist in the Navy.

SHIPSHAPE—Neat, clean, taut, in fine shape.

SHOAL—Similar to a reef, but more gradual in its rise from the floor of the ocean.

SHORE—(1) The land in general, but usually refers to that part adjacent to the water. (2) A timber used in damage control to brace bulkheads and decks.

SHROUD— A line or wire that provides athwartship support for a mast.

SICK BAY—Shipboard space used as a hospital.

SIDE BOY—One of a group of seamen who form two ranks at the gangway as part of the ceremonies conducted for visiting officials.

SIDE LIGHT—One of the required running lights. The starboard *side light* is green and the port *side light* is red.

SIDE PORT—A watertight opening in a ship's side that is used as a doorway.

SIGHT—(1) To see for the first time, as to *sight* a ship on the horizon. (2) A celestial observation.

SKYLARK—To engage in irresponsible horseplay.

SLACK—(1) To allow a line to run out. (2) Having little or no discipline, as a *slack* ship.

SLIP—(1) To free a ship of its anchor by disconnecting the cable or by allowing its bitter end to run out. (2) A narrow space between two piers, or the space between two rows of piles that guide a ferryboat into its berth.

SMALL CRAFT—Any less-than-ship-sized vessel.

SMALL STORES—Personal needs for sailors, such as articles of clothing.

SMART—Snappy, seamanlike, shipshape.

SNAKING—Netting stretched between the gunwales and footrope (see Lifeline) to prevent objects from going over the side.

SNUB—The act of suddenly checking a line that is running out under a strain.

SOPA—Abbreviation for senior officer present afloat.

SOUND—(1) To determine the depth of water. (2) The act of a whale or similar creature in diving deep. (3) A body of water between the mainland and a large coastal island.

SPANNER—A wrench used for tightening couplings on a fire hose.

SPAR—A long cylindrical member of wood or metal, tapered at the ends; usually attached to a mast for use as a boom or for the attachment of equipment such as signal halyards. See Boat Boom; Yardarm.

SPAR BUOY—A buoy shaped like a spar. Usually indicates special areas, such as a quarantine anchorage (yellow) or normal anchorage (white), but may be used to indicate a channel (painted red or green, as appropriate).

SPECIAL SEA DETAIL—Personnel aboard ship assigned special duties connected with leaving and entering port.

SPLICE—The act of intertwining strands of lines or wires to join them together or to make an eye; the joint so made.

SPRING—A mooring line that leads forward (or aft) at an angle from ship to pier. Its purpose is to check the fore and aft movement of the ship.

SPRING LAY—Wire rope in which each strand consists partly of wire and partly of tarred hemp or similar fiber.

SQUADRON—Two or more divisions of ships or aircraft.

SQUARE AWAY—Put in proper order; make things shipshape.

SQUARE KNOT—Simple knot used for bending two lines together or for bending a line to itself.

STACK—Shipboard chimney.

STANCHIONS—Vertical posts used for supporting decks; smaller, similar posts used for supporting lifelines, awnings, etc.

STAND BY—To "prepare for" or "make ready to."

STANDING LIGHTS—Red night-lights throughout the interior of a ship.

STANDING PART—The main part of a line, as distinguished from its ends.

STARBOARD—Direction to the right of the centerline as one faces forward.

STATEROOM—A living compartment for an officer or for a small number of officers.

STATION—(1) An individual's place of duty. (2) Position of a ship in formation. (3) Location of persons and equipment having a specific purpose, as a gun control *station*. (4) Order to assume a post of duty, as "*Station* the special sea and anchor detail."

STAY—Any piece of standing rigging, except a shroud, providing support only.

STEADY (STEADY SO) (STEADY AS YOU GO) (STEADY AS SHE GOES)—Order to the helmsman to steer the ship on the course it is heading at the time the order is given.

STEM—The forward vertical extension of the keel.

STERN—The aftermost part of a vessel.

STERN HOOK—Member of a boat's crew whose station is aft.

STERN LIGHT—White navigation light that can be seen only from astern to 6 points on either quarter (total of 12 points, or 135 degrees).

STERNPOST—The after vertical extension of the keel.

STERN SHEETS—The after passenger space in an open boat.

STOP—A short line attached to the edge of an awning, boat cover, etc.; used to lash the cover to a support.

STOW—To store or pack articles or cargo in a space.

STRAKE—Fore-and-aft strip of plating in the shell or in a deck.

STRAND—(1) One of the main subdivisions of a line or wire. (2) The act of a vessel in going aground.

STRINGER—(1) A longitudinal frame providing strength to a ship's sides. (2) A long timber between piles at the edge of a pier.

STRUCTURAL BULKHEAD—Transverse-strength bulkhead that forms a watertight boundary.

SUPERSTRUCTURE—The ship's structure above the main deck, exclusive of top-hamper.

SWAB—Same as, but never referred to as, a mop.

SWAMP—The filling of an open boat with water taken over the side.

TACKLE—See Purchase.

TAFFRAIL—The rail around the stern of a ship or boat.

TARPAULIN—Canvas used as a cover.

TAUT—(1) Under tension, as a *taut* rope. (2) A high state of discipline and efficiency, as a *taut* ship.

TENDER—(1) One who serves as a precautionary standby, as the line *tender* for a diver. (2) An auxiliary vessel that acts as a support ship for other ships, as a destroyer *tender*.

THREEFOLD PURCHASE—A tackle containing two three-sheave blocks.

THWART—Plank set athwartships just below the gunwales in an open boat; acts as a seat and provides support to the sides.

TOPSIDE—Generally refers to weather decks.

TRANSVERSE FRAME—Structural member that extends outward from the keel and upward to the main deck.

TRICE UP—To secure bunks by hauling them up and hanging them off (securing them) on their chains.

TRUNK—The uppermost tip of a mast.

TURNBUCKLE—Device for setting up a tension, as in a lifeline, by turning a buckle into which two eyebolts are threaded.

TURN OF THE BILGE—Where the side meets the bottom.

TURN IN—(1) Retire to bed. (2) Return articles to the issue room.

TURN OUT—(1) Get out of bed. (2) Order out a working party or other groups, as to *turn out* the guard.

TURN TO—Start working.

UP ALL LATE BUNKS—An order to personnel entitled to sleep after reveille to get up.

UPPER DECK—The first deck above the main deck.

VEER—(1) To allow a line, wire, or chain to run out by its own weight. (2) To swerve. (3) Act of the wind in changing direction clockwise.

VOID—An empty tank.

WAIST—The amidships section of the main deck.

WAKE—Trail left by a vessel, or other object, moving through the water.

WARDROOM—Officers' messing compartment.

WATCH—(1) One of the periods (usually 4 hours) into which a day is divided. (2) A particular duty, as lifebuoy *watch*. (3) The act of a buoy or other marker in indicating the position of a sunken object.

WATERTIGHT INTEGRITY—A ship's degree of resistance to flooding.

WAY—(1) Horizontal motion of a floating body. (2) Launching track in a shipbuilding yard.

WEATHER DECK—Any deck exposed to the elements.

WET DOCK—A basin formed, by the construction of barriers with gates, in a harbor of great tidal ranges to prevent ships from being stranded during low tides. Ships enter the basin at high tide, the gates are closed, and the water is retained in the basin when the tide ebbs.

WHARF—Similar to a quay, but constructed in the fashion of a pier.

WHIPPING—Binding on the end of a line or wire to prevent unraveling.

WILDCAT—That portion of a windlass which engages the links of the anchor chain so that the anchor can be heaved in.

WINDWARD—Toward the direction from which the wind is blowing.

YARD—Spar set athwartships across the upper part of a mast.

YARDARM—The port or starboard half of the horizontal crosspiece of the mast that is either the port or starboard yardarm.

YAW—The act of a vessel when its heading is thrown wide of its course by a force from astern, such as a heavy following sea.

APPENDIX II

NAVAL TERMS AND CUSTOMS

Persons entering a new profession must learn the vocabulary peculiar to that profession to understand and make themselves understood by their associates. The Navy, too, has its own vocabulary, containing unique expressions for many commonplace terms. You will soon realize that the language of the sea has a great deal of merit. You will come to understand that, under certain circumstances, a word or a few words have a precise meaning or require a certain sequence of actions. You will notice that the use of such words will eliminate the need to accompany an order with extended explanatory details. When the proper order is given, the desired response is obtained.

You will notice, too, that when a chance for confusion exists, a strange, new term may be substituted for an old, familiar one. For example, the word *stop* may be used in orders for the ship's engines but never for the anchor windlass or for the helm. An officer conning a ship issues many different orders when a ship is getting under way, mooring, or anchoring. Yet, when couched in proper, seaman-like language, the orders are understood and are carried out by the proper individual or group. To stop all the engines, to stop the swing of the ship, or to stop the anchor windlass, the conning officer gives the order ''All engines stop,'' ''Meet her,'' or ''Avast heaving.'' These terms leave no chance for confusion. The person on the engine-order telegraph rings up stop, the steersman puts the rudder over, or the proper talker relays the order, ''Avast heaving,'' to the anchor detail on the forecastle.

An order or a term may have its origin in antiquity, or it may have been recently coined; but that is not important. What is important is that the expression conveys, in as few words as possible, an exact meaning with little or no chance for confusion. Those that fit this requirement live on as long as there is need for them; those that do not are soon replaced.

It behooves you to learn and use this language because it is a necessary tool of your trade.

This appendix describes many of the customs, terms, or expressions that form our nautical language.

ANCHOR WATCH

Years ago ships were equipped with anchor cables of hempen rope and oil-burning riding lights. While the ship was riding at anchor, special care was taken to see that these lamps were not extinguished, that the cables did not part, and that the ship did not drag its anchor. The watch responsible for this particular duty was designated the *anchor watch*. The anchor watch, as a sea term, is still retained although the duties of the watch have changed considerably since the old days. Today, the anchor watch is a detail of personnel on deck at night safeguarding the vessel when at anchor.

BELLS

Certain words and expressions preserve for us old customs, as in the instance of *bells* struck aboard ship. They are not primarily intended to replace clocks for telling time. But they do tell clock time by measuring the periods when certain members of the crew are standing watch.

This custom started with the hourglass—which really wasn't an hourglass but a half-hour glass. The quartermaster on watch turned the glass at the end of his first half-hour and struck the bell one time. He then struck the bell an additional stroke at the end of each half-hour after that. At the end of 4 hours, he would strike the bell eight times, signaling the completion of his watch and the beginning of the next 4-hour watch. So it went during the six watches of the 24 hours, ending at midnight. While the hourglass has long been out of date, the bells are still used aboard ship.

BILGE

Bilge usually refers to the bottom of the ship or, more correctly, to the curved part of the ship's hull. It also has another connotation. Midshipmen who are dropped from school for academic reasons are said to be "bilged." Thus, when used as a verb, the term means to be dropped out of the bottom—in this case the bottom of the class.

BINNACLE LIST

The *binnacle list* gets its name from the old nautical practice of placing the sick list on the binnacle (stand containing ship's compass). It was placed there each morning so that it would be readily available for the captain. The modern binnacle list contains the names of personnel suffering minor complaints that preclude their employment on strenuous duty. Today the sick list contains the names of personnel who are hospitalized.

BITTER END

Bitter end was originally the turn of a cable's end around the bitts. It now refers to the end of the chain cable secured in the chain locker or the loose end of a line. In all cases the inboard end is referred to as the bitter end.

BLUEJACKET

Uniforms first adopted for the Royal Navy included a short, blue jacket. No universal uniform was prescribed for U.S. Navy enlisted personnel until the 1850s. Therefore, in the early days of that century, many men unofficially wore the blue jacket of the Royal Navy. Enlisted personnel are sometimes referred to as *bluejackets*. The term *white hat* is used to refer to Navy enlisted personnel below the rate of chief petty officer.

BOATSWAIN

Boatswain is pronounced bo'-sun. *Swain* or *swein* is the Saxon word for servant or boy. In our Navy, boatswain refers to a warrant or petty officer in charge of the deck crew. It also refers to those responsible for the maintenance of the ship's hull and external equipment.

BOATSWAIN'S PIPE

The *boatswain's pipe* is an article of great antiquity. Originally employed to "call the stroke" in ancient row galleys, it became, in the early English Navy, a badge of office and of honor. Later the pipe became the distinctive emblem of the boatswain and his mates. Today boatswain's mates use the pipe when the "word is passed," when officers are piped over the side, and so forth.

BRIG

Lord Nelson used a brig (a type of sailing ship) in battle for removing prisoners from his ships; hence, prisons at sea came to be known as *brigs*.

BUMBOAT

The *bumboat* is a boat employed by civilians to carry salable provisions, vegetables, and small merchandise to ships. The term may have been derived from "boom-boat," indicating boats permitted to lie at the ships' booms.

CARRY ON

In the days of sail, the officer of the deck constantly kept a weather eye on the slightest change in wind so that sail could be reefed or added as necessary to ensure the fastest headway. Whenever a good breeze came along, the order to "carry on" would be given. It meant to hoist every bit of canvas the yards could carry. Pity the poor sailor whose weather eye failed him and allowed the ship to be caught partially reefed when a good breeze arrived.

Through the centuries the term's connotation has changed somewhat. Today, the Bluejackets Manual defines *carry on* as an order to resume work; work not so grueling as two centuries ago.

CAULK

Caulk, commonly mispronounced "cork," means to pack a seam in the planking of a ship. When caulking wooden ships in dry dock, workmen usually had to lie on their backs underneath the hull. In this position it was not difficult to fall asleep. Hence, to "take a caulk" or to "caulk off" is the sailors' expression for sleeping or taking a nap.

CHAINS

On many sailing ships, shrouds supporting the masts were secured to links of chain attached to the ships' sides. To get a better lead for the shrouds and to keep them from bearing on the bulwarks, a ship's leadsman led the chains up around thick planks jutting from the ship's sides. These planks made convenient platforms from which the leadsman could heave the lead, and the leadsman was "in the chains." Later, as now, shrouds were secured on deck inboard of bulwarks or lifelines. Special platforms were built for the leadsman, but the term *chains* was retained.

CHARLIE NOBLE

The term *Charlie Noble* refers to the galley smoke pipe. While its origin is obscure, it is generally believed to have been derived from the British merchant skipper, Charlie Noble, who demanded a high polish on the galley funnel. His bright copper galley funnel became well known in the ports he visited.

CHEWING THE FAT

"God made the vittles, but the devil made the cook," was a popular saying used by seafaring men in the last century when salted beef was staple diet aboard ship.

This tough, cured beef, suitable only for long voyages when nothing else was as cheap or would keep as well, required prolonged chewing to make it edible. Since men often chewed one chunk for hours, just as if it were chewing gum, they referred to this practice as *chewing the fat*. Today this term is used to describe a conversation.

CHIT

This term refers to almost any sort of paper used in everyday business transactions. Derived from the old East India Company and the hindu word *chitti*.

CHRISTENING A SHIP

Launching ceremonies have had a religious significance from the earliest days. The christening ceremony originated as an appeasement to the gods of the elements. In some countries as recently as a hundred years ago, a launching frequently resembled a baptismal ceremony and was performed by priests.

Early in the 19th century, women and those other than the clergy and high officials began to take part in the ceremony of launching ships.

Today the ceremony usually consists in the naming of the vessel by a sponsor and the breaking of a bottle of wine against the ship's bow as it slides into the water. People have been known to miss the ship entirely; so today the bottle is secured by a lanyard to the bow of the ship—as a safety measure for spectators.

COMMISSION PENNANT

The origin of the commission pennant is said to date back to the 17th century. When the Dutch were fighting the English, Admiral Tromp hoisted a broom at his ship's masthead to indicate his intention to sweep the English from the sea. The gesture was soon answered by the English admiral who hoisted a horsewhip to indicate his intention to chastise the Dutch. The British carried out the admiral's boast. Ever since, a narrow pennant has symbolized the original horsewhip as the distinctive mark of a vessel of war.

The *commission pennant*, as it is called today, is blue at the hoist, with a union of seven white stars; it is red and white at the fly, in two horizontal stripes. The number of stars has no special significance but was arbitrarily selected as providing the most suitable display. The pennant is flown at the main by vessels not carrying flag officers. A vessel carrying an admiral, a squadron commander, a group commander, or a high-ranking civil official flies that person's personal flag or command pennant in lieu of the commission pennant.

CONN

To *conn* means to control, or direct by rudder and engine order telegraph, the movements of a ship. When someone has the conn, it indicates that person is the one and only person who can give orders to the wheel and engine order telegraph at any one time. The exact derivation of the word *conn* is not known.

COXSWAIN (COCKSWAIN)

This term is derived from "cock," a small boat, and "swain," a servant. It signifies an enlisted person in charge of a boat in the absence of a line officer. Pronounced cox'-un.

CROSSING THE LINE

The boisterous ceremonies of *crossing the line* (equator) are so ancient that their derivation has been lost. It is said that this custom had its origin in offerings to pacify the deities of the sea by mariners who thought that gods and goddesses controlled the elements.

Today when naval ships cross the equator, those members of the crew (called "polliwogs") who have never before crossed the line are initiated by the more experienced members of the crew (called "shellbacks"). The usual formula is for the shellbacks to attire themselves in strange costumes representing Neptune, Amphitrite, and other mythological gods and goddesses of the sea. A court is held among Neptune's subjects, and the novices are summoned to trial. The fate administered to each is in the nature of ridicule, such as a parade of the person's particular idiosyncrasies and a caricature of the person's foibles. The victim is usually lathered with some frightful concoction, shaved with a wooden razor, and ducked backward into a tank of water. The victim is then issued a certificate, signed by Neptunus Rex, documenting the fact that the person has crossed the line and is now a full-fledged "shellback."

CUT OF HIS JIB

The nationality of the early sailing ships was frequently determined by the shape or cut of their jib sails. Use of the phrase as applied to man originally referred to his nose—which, like the jib, is the first feature of its wearer to come into view. Ultimately it was extended to describe a man's general appearance.

DIPPING THE ENSIGN

Dipping the flag in salute is a relic of an old-time custom of merchant vessels. These vessels were required not only to heave to when approaching a warship on the high seas, but also to clew up all their canvas to indicate the ship's honesty and willingness to be searched. Since delays resulted, the rule of dipping the flag was authorized in later years as a timesaving substitute. Ships of the U.S. Navy return such salutes dip for dip, except for dips rendered by ships under the flag of nations not formally recognized by the United States. No ship of our Navy initiates a dip.

DITTY BAGS

A *ditty bag* (or box) was originally called a "ditto bag" because it contained at least two of everything: two needles, two spools of thread, two buttons, and so forth. With the passing of years, the "ditto" was dropped in favor of "ditty" and remains so today.

Before World War I, the Navy issued ditty boxes made of wood and styled after foot lockers. These boxes carried the personal gear and some clothes of the sailor.

Today the ditty bag is still issued to recruits. It contains a sewing kit, toiletry articles, and personal items such as writing paper and pens.

DUNGAREES

In the past *dungaree* referred to a coarse kind of fabric worn by the poorer class of people and also used for tents and sail. We find it hard to picture our favorite pair of dungarees flying from the mast of a sailing ship. However, in the early days of sailing ships, sailors often made both their working clothes and hammock out of discarded sail cloth.

The cloth used then wasn't as well woven as that of today, nor was it dyed blue; but it served the purpose. Dungarees worn by sailors of the Continental navy were cut directly from old sails. The dungarees remained tan in color, just as they had been when filled with wind.

After battles, the captains of both the American and British navies reported more sail lost in battle than actually was the case. This practice provided the crew with cloth to mend their hammocks and make new clothes. Since the cloth was called dungaree, clothes made from the fabric were called by the same name.

EYES OF THE SHIP

In the early days the bows of ships usually were carved to resemble heads of mythological monsters or patrons. The fore part of the ship was called the "head." The term *eyes of the ship* was derived from the eyes of the figures carved on the bow.

FLAG AT HALF-MAST

During times of mourning in old sailing days, ships displayed loose, suspended yards and slack rigging. The ships purposely exhibited this lax appearance to show that grief was so great that keeping things shipshape was impossible. Today the half-masting of the colors is a survival of the days when a slovenly appearance characterized mourning on shipboard.

FORECASTLE

Forecastle is pronounced "focsul." In the days of Columbus, ships were fitted with castle-like eminences fore and aft. While both structures have disappeared, the term *forecastle*, referring to the same general part of the ship as the original "forward castle," still remains.

GANGWAY

The word *gangway* is taken from the anglo-saxon word *gang*, meaning to go, make a passage in, or cut out (or cut through). It is commonly used as an order to sailors to stand aside or to stand clear.

GEEDUNK

To most sailors the word *geedunk* means ice cream, candy, potato chips, and other assorted snacks or even the place where they can be purchased. No one, however, knows for certain where the term originated; there are several plausible theories:

- In the 1920s a comic strip character named Harold Tenn and his friends spent a great amount of time at Pop's candy store. The store's name was the Sugar Bowl, but Harold and company always called it the geedunk for reasons never explained.
- The Chinese word meaning a place of idleness sounds something like "gee dung."
- "Geedunk" is the sound made by a vending machine when it dispenses a soft drink in a cup.
- It may be derived from the German word *tunk* meaning to dip or sop either in gravy or coffee. Dunking was a common practice in days when bread, not always obtained fresh, needed a bit of "tunking" to soften it. The "ge" is a German unaccented prefix denoting repetition. In time it may have changed from getunk to geedunk.

Whatever theory we use to explain the origin of geedunk, it doesn't alter the fact that Navy people enjoy the treats associated with this term.

GROG

Admiral Edward Vernon of the Royal Navy is responsible for the term *grog*. He was in the habit of walking the deck of his flagship in a boatcloak of grogram cloth. That habit suggested a nickname for the popular flag officer, and Admiral Vernon came to be known affectionately as "Old Grog." In 1740 he introduced West Indian rum aboard ship by having a mixture of rum and water served as a ration to the crew. It was intended as a preventive against fevers, which so often decimated expeditions to the West Indies. This innovation was received with enthusiasm by the men on the flagship *Burford*, who promptly named the beverage after their illustrious leader.

Forty years later verses were composed on the cruiser *Berwick* that bespeak the popularity of the officer and the drink; the last two stanzas are as follows:

A mighty bowl on deck he drew,
  And filled it to the brink;
Such drank the *Burford's* gallant crew,
  And such the gods shall drink.
The sacred robe which Vernon wore
  Was drenched within the same;
And hence his virtues guard our shore,
  And grog derives its name.

GUNDECKING

In the modern Navy, falsifying reports, records, and the like is often referred to as *gundecking*. The origin of the term is somewhat obscure, but at the risk of gundecking, here are two plausible explanations for its modern usage.

The deck below the upper deck on British sailing ships-of-war was called the gun deck, although it carried no guns. This false deck may have been constructed to deceive enemies as to the amount of armament carried; thus, the gun deck was a falsification.

A more plausible explanation may stem from shortcuts taken by early midshipmen when doing their navigation lessons. Each midshipman was supposed to take sun lines at noon and star sights at night and then go below to the gun deck, work out their calculations, and show them to the navigator.

Certain of these young men, however, had a special formula for getting the correct answers. They would note the noon or last position on the quarterdeck traverse aboard and determine the approximate current position by dead reckoning plotting. Armed with this information, they proceeded to the gun deck to "gundeck" their navigation homework by simply working backwards from the dead reckoning position.

HAWSER

Hawser is a heavy line of hemp, used for mooring and towing. It was formerly used as anchor cable (before chains). It is derived from the French *hausser*, meaning "to haul."

HEAD

The ship's lavatory is called the *head* because these facilities in the old days were located in the forward part of the ship.

LASHING BROOM TO MASTHEAD

A popular custom in the U.S. Navy is that of lashing a broom to the masthead of a ship when it has participated in a complete victory over an enemy force. The broom signifies the ship's ability to sweep the seas. (A ship making the highest gunnery or engineering record in the fleet also displays a broom.) As noted earlier for his unusual display of victory, Admiral Tromp originated this custom (see Commission Pennant).

LUCKY BAG

Formerly, a *lucky bag* was a bag in which personal possessions that had been left adrift were stored. Today, the term refers to any storage area for loose gear picked up by the master-at-arms force.

MAST

The term *captain's mast*, or merely *mast*, derives from early sailing days when naval justice proceedings were held on the weather deck near the ship's mainmast.

MIDSHIPMEN

In early days the crew was quartered in the forecastle, while officers lived in the aftercastle. The title "midshipmen" was originally given to youngsters of the British Navy who acted as messengers, carrying orders from officers aft to the men forward. These lads, who continuously passed back and forth amidships, were regarded as apprentice officers. The ancient term has survived, and today officer candidates at Annapolis (and other midshipmen's schools) are called *midshipmen*.

PIPING THE SIDE

To the new officer the custom of *piping the side*, a heritage from the British Navy, seems one of the strangest of all naval customs. It originated in the days of sail when captains visiting one another at sea were hoisted on board in a net or basket if rough weather prevented the use of ladders. Piping was necessary in setting taut and hoisting away the cargo net or basket containing the boarding officer. Thus, we acquired the custom of piping the officer alongside and over the gangway.

The officer of the deck ordinarily summoned from the crew several hands to assist the visitor in making the landing on deck. If he were young, a lieutenant perhaps, two men were required to help him; if older, a commander perchance, having increased his girth as well as his grade through the years, he might require four. If, however, he happened to be a captain or an admiral, he may have required six or eight to enable him to secure a stable footing. Thus, there came about the custom of having "side boys" to meet officers. When the custom became a regulation courtesy, the side was similarly attended upon their departure.

QUARTERDECK

There is evidence that the marked respect paid the *quarterdeck* aboard ship today had its origin many hundreds of years ago. In the days of Greek and Roman sea power, obeisances were made to the pagan altar, which was placed aft. Later the same respect was paid the shrines of the Virgin similarly located. Still later the "King's colors," which were a symbol of church and state combined, became the object of respect. One is impressed with the thought that the quarterdeck has always been the honored part of the ship. It retains its "sanctity" today. (The name *poop deck* derives from the Latin word *puppis*, a name given the sacred deck where the pupi or doll images of the deities were placed.)

ROPE YARN SUNDAY

On the day the tailor boarded a sailing ship in port, the crew knocked off early, broke out rope yarn, and mended clothes and hammocks. One afternoon per week at sea, usually a Wednesday, was reserved for mending. Since it was an afternoon for rest from the usual chores, much like Sunday, it was dubbed *rope yarn Sunday*.

The Navy adhered to the custom up to the years immediately after World War II; men used Wednesday afternoon for personal errands like picking up their laundry and getting haircuts. They paid back the time by working half a day on Saturdays.

Today, uniforms require less attention, so rope yarn Sunday has been turned to other purposes—mainly early liberty or a time for catching up on sleep. Some, however, still adhere to tradition by breaking out the ditty bag for an afternoon of uniform PMS.

SALLY SHIP

Sally ship was not a ship but a method of loosing a vessel run aground from the mud holding it fast. In the days before sophisticated navigation equipment, ships ran aground much more often than today. A grounded ship could be freed with little or no hull damage if it could be rocked out of its muddy predicament.

To free the ship, the order was given to ''sally ship.'' The crew gathered in a line along one side and then ran back and forth athwartships from port to starboard until the vessel began to roll. Often the rolling broke the suction of the mud so that the ship could be pulled free and gotten under way.

SHIP'S HUSBAND

Sometimes when a ship is heading for the yards, an old salt says that she is going to her husband now, which causes novices to wonder what he's talking about. A *ship's husband* was once a widely used term describing the man in charge of the shipyard responsible for the repair of a particular ship. It was not uncommon to hear the sailors of creaking ships lament, ''Ah, she's been a good ship, lads, but she's needing her husband now.''

In the course of a ship's life, she may have had more than one husband; but this had little bearing upon her true affections. Tradition has it, her love was saved solely for her sailors.

SICK BAY

Admiral Horatio Nelson, who was responsible for many British naval customs, forerunners of our own, originated the term *sick berth* in his order to the Mediterranean fleet in 1798. In a line-of-battle ship, the sick berth was placed in the bow. When round bows were introduced in 1811, the sick berth, keeping its same position, found itself in a bay (semicircular indentation). Thus, in 1813 the British began the use of the term *sick bay*. It is customary today for officers to remove their caps when entering sick bay. It may be that this custom stems from the early sailing days when men were not admitted to sick bay until they were about ready for ''slipping the cable'' (dying).

SKYLARK

To *skylark* is to be inattentive or engage in horseplay, usually when one is supposed to be working. The term came about when young sailors would climb to the skysail yardarms and slide down the stays.

STARBOARD AND PORT

In the old Viking ships, ships were steered by means of a heavy board secured to the right side of the ship. Therefore, the right side of the vessel (looking forward) was called the ''steerboard'' side. Loading was avoided from that side because of the possibility of damaging the steering gear. Gradually the term *steerboard* was corrupted to *starboard*.

The left side of these old ships (the place of loading) was called the ''load board'' side. This finally became ''larboard.'' Because ''starboard'' and ''larboard'' sounded so much alike, the term *port* was substituted in the United States Navy for *larboard*. A General Order (18 February 1846) reads: ''It having been repeatedly represented to the Department that confusion arises from the use of the words 'Larboard' and 'Starboard' in consequence of their similarity of sound, the word 'Port' is hereafter to be substituted for Larboard.'' (Perhaps the term *port* was used because, as ships became larger and rose higher in the water, loading took place through openings in the sides called ''ports.'')

SUNDOWNER

A *sundowner* is a harsh disciplinarian. The term is derived from the practice of strict captains in the early days who ordered all hands to be aboard by sunset.

TAR

Sailors once covered their clothes with *tar* or oil to make them waterproof; hence, the nickname often applied to mariners.

TATTOO

Tattoo is derived from the old dutch term *taptoe*, meaning the time to close the taps or taverns. At the appointed hours, drummers marched from post to post in the town, beating their drums. "First post" was the signal given when they had taken their place and were ready to commence their rounds (this signal survives in the Navy as "first call"), while "last post" was sounded when they had reached the end of their rounds (this signal survives as our present "tattoo"). The "first call" is sounded 10 minutes before "taps"; "tattoo," 5 minutes before "taps." "Taps" is the signal for lights out.

TONNAGE

Today *tonnage* refers to a ship's displacement in the water or the gross pounds of cargo it is capable of carrying. In the days of sail, tonnage was spelled "tunnage" and referred to the number of "tuns" a ship could carry. A "tun" was a barrel normally used for transporting wine, and tunnage specified the number of barrels that would fit into the ship's hold.

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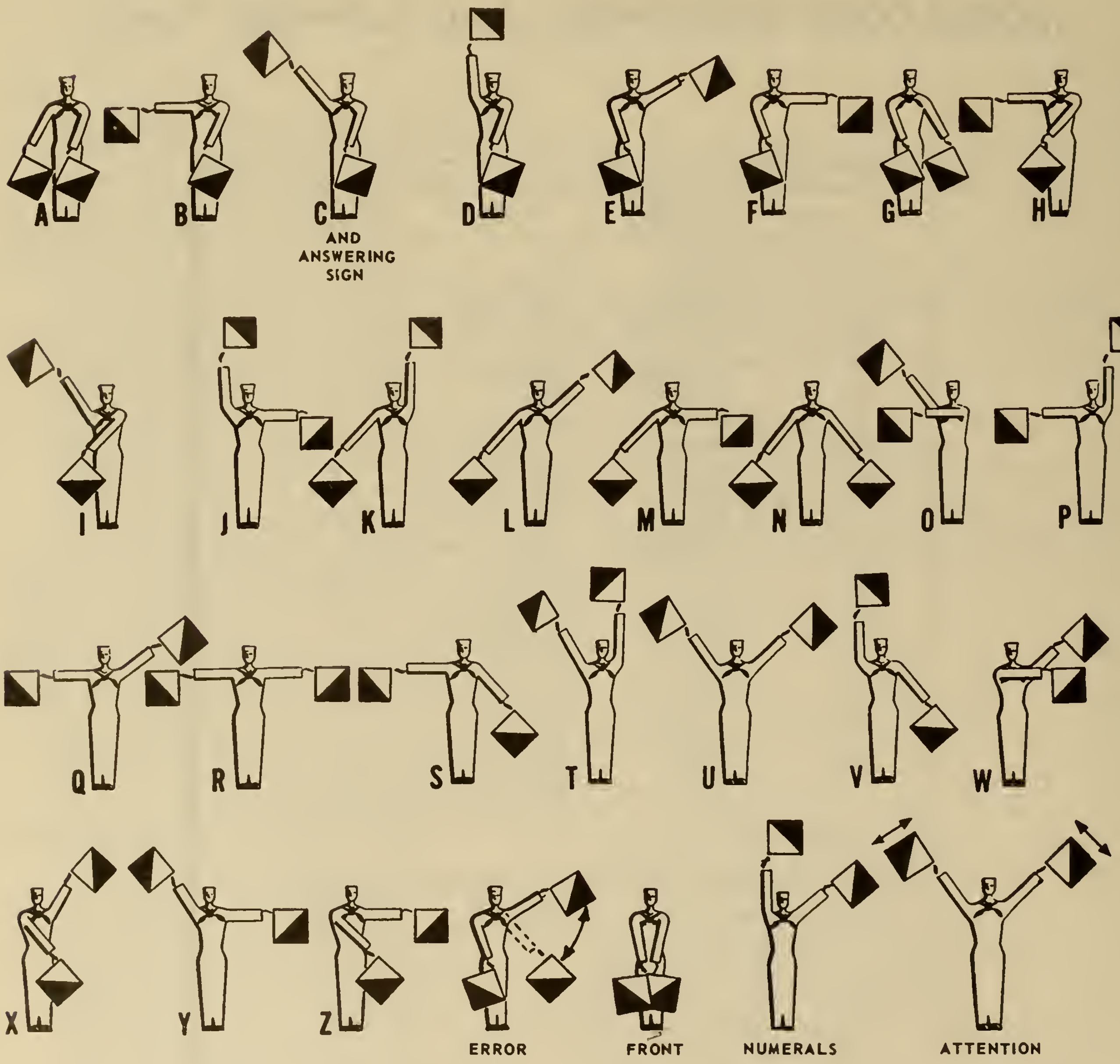
APPENDIX I

MORSE CODE, SEMAPHORE, AND ALPHABET FLAGS

Letter	Phonetic Alphabet	Pronunciation Guide	International Morse Code
A	ALFA	AL FA	.—
B	BRAVO	BRAH VOH	—...
C	CHARLIE	CHAR LEE	—.—.
D	DELTA	DELL TAH	—..
E	ECHO	ECK OH	.
F	FOXTROT	FOKS TROT	..—.
G	GOLF	GOLF	——.
H	HOTEL	HOH TELL	....
I	INDIA	IN DEE AH	..
J	JULIETT	JEW LEE ETT	.———
K	KILO	KEY LOH	—.—
L	LIMA	LEE MAH	.—..
M	MIKE	MIKE	——
N	NOVEMBER	NO VEM BER	—.
O	OSCAR	OSS CAH	———
P	PAPA	PAH PAH	.——.
Q	QUEBEC	KAY BECK	——.—
R	ROMEO	ROW ME OH	.—.
S	SIERRA	SEE AIR RAH	...
T	TANGO	TANG GO	—
U	UNIFORM	YOU NEE FORM	..—
V	VICTOR	VIK TAH	...—
W	WHISKEY	WISS KEY	.——
X	XRAY	ECKS RAY	—..—
Y	YANKEE	YANG KEY	—.——
Z	ZULU	ZOO LOO	——..

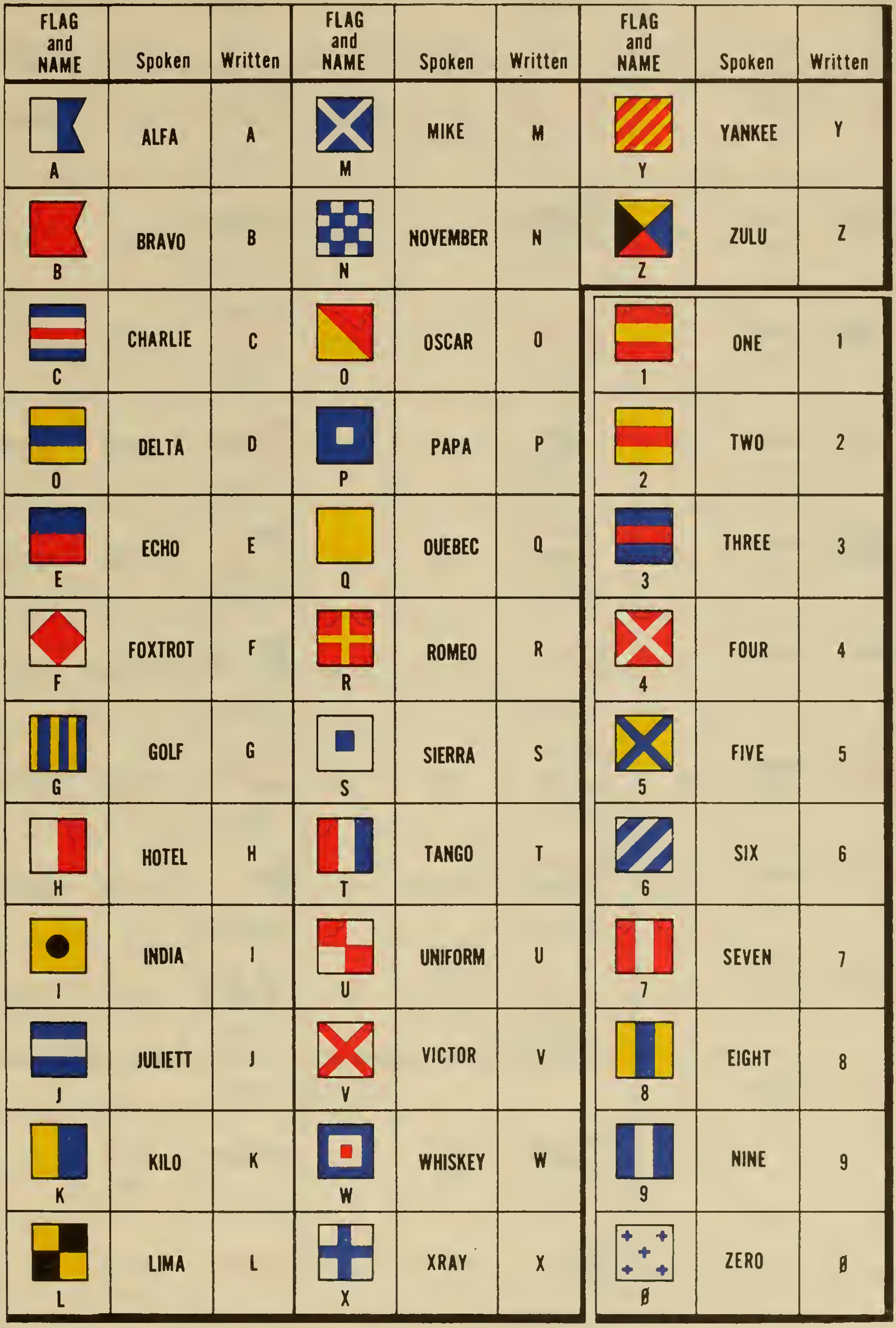
Number	Pronunciation Guide	International Morse Code
1	WUN	.————
2	TOO	..———
3	TREE	...——
4	FO-WER	....—
5	FIFE	.....
6	SIX	—....
7	SEVEN	——...
8	ATE	———..
9	NINER	————.
0	ZERO	—————

Figure AI-1.—Phonetic alphabet and Morse code. 17.20


A
B
C
AND
ANSWERING
SIGN
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
ERROR
FRONT
NUMERALS
ATTENTION

17.18

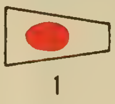
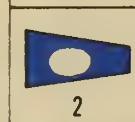
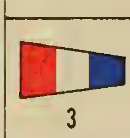
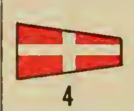
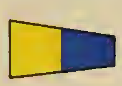
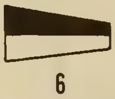
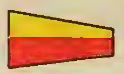
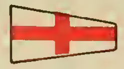
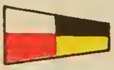
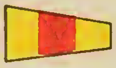
Figure AI-2.—Semaphore alphabet.

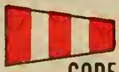
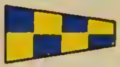
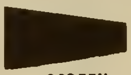
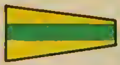
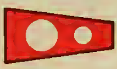
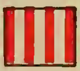
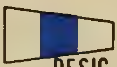
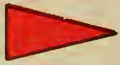
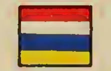
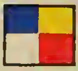
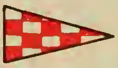
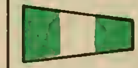
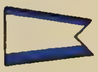
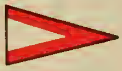
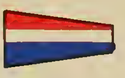
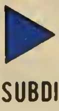
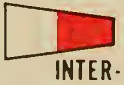
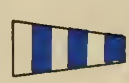


FLAG and NAME	Spoken	Written	FLAG and NAME	Spoken	Written	FLAG and NAME	Spoken	Written
A	ALFA	A	M	MIKE	M	Y	YANKEE	Y
B	BRAVO	B	N	NOVEMBER	N	Z	ZULU	Z
C	CHARLIE	C	O	OSCAR	O	1	ONE	1
D	DELTA	D	P	PAPA	P	2	TWO	2
E	ECHO	E	Q	QUEBEC	Q	3	THREE	3
F	FOXTROT	F	R	ROMEO	R	4	FOUR	4
G	GOLF	G	S	SIERRA	S	5	FIVE	5
H	HOTEL	H	T	TANGO	T	6	SIX	6
I	INDIA	I	U	UNIFORM	U	7	SEVEN	7
J	JULIETT	J	V	VICTOR	V	8	EIGHT	8
K	KILO	K	W	WHISKEY	W	9	NINE	9
L	LIMA	L	X	XRAY	X	0	ZERO	0

Figure AI-3.—Alphabet and numeral flags.

C17.67

PENNANT and NAME	Spoken	Written
 1	PENNANT ONE	p1
 2	PENNANT TWO	p2
 3	PENNANT THREE	p3
 4	PENNANT FOUR	p4
 5	PENNANT FIVE	p5
 6	PENNANT SIX	p6
 7	PENNANT SEVEN	p7
 8	PENNANT EIGHT	p8
 9	PENNANT NINE	p9
 0	PENNANT ZERO	p0
TACK LINE	TACK	—

PENNANT or FLAG	Spoken	Written	PENNANT or FLAG	Spoken	Written
 CODE or ANSWER	CODE or ANSWER	CODE or ANS	 NEGATIVE	NEGAT	NEGAT
 SCREEN	SCREEN	SCREEN	 PREPARATIVE	PREP	PREP
 CORPEN	CORPEN	CORPEN	 PORT	PORT	PORT
 DESIGNATION	DESIG	DESIG	 SPEED	SPEED	SPEED
 DIVISION	DIV	DIV	 SQUADRON	SQUAD	SQUAD
 EMERGENCY	EMERGENCY	EMERG	 STARBOARD	STARBOARD	STBD
 FLOTILLA	FLOT	FLOT	 STATION	STATION	STATION
 FORMATION	FORMATION	FORM	 SUBDIVISION	SUBDIV	SUBDIV
 INTERROGATIVE	INTERROGATIVE	INT	 TURN	TURN	TURN

SUBSTITUTES

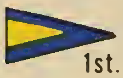
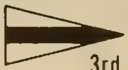
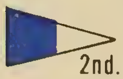
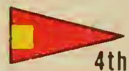
 1st. SUBSTITUTE	FIRST SUB	1st.	 3rd. SUBSTITUTE	THIRD SUB	3rd.
 2nd. SUBSTITUTE	SECOND SUB	2nd.	 4th. SUBSTITUTE	FOURTH SUB	4th.

Figure AI-4.—Numeral pennants, special flags and pennants, and substitutes. C17.68

Watertight integrity, 17-4 to 17-5
Weapons systems, 20-1 to 20-15
    Aegis, 20-13 to 20-15
    airborne, 20-9 to 20-10
    antisubmarine warfare, 20-11 to 20-13
    close-in weapons system (CIWS), 20-3
    guns, 20-2 to 20-4
    nuclear, 20-13
Weapons systems—Continued
    submarine-launched missiles, 20-7 to 20-9
    surface-launched antiair warfare (AAW) missiles, 20-4 to 20-6
Women, 2-29 to 2-31, 14-6
    in the Marines, 14-6
    in the Navy, 2-29 to 2-31
    Waves, 2-29 to 2-31

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